



Cardinal Creek Village **CONCEPT PLAN**

July 2013

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1. Concept Plan Context

1.1 INTRODUCTION

This Concept Plan has been prepared to provide a more detailed approach to the policy implementation of the Official Plan. The primary goal of this Concept Plan is to provide a detailed land use plan to guide future development in the Concept Plan Area.

The boundaries of the Concept Plan area are generally defined by:

- Ottawa Road 174 and the Ottawa River to the north;
- Cardinal Creek to the west;
- Frank Kenny Road/Ted Kelly Lane to the east; and,
- Urban area limits to the south.

The area is illustrated on **Figure 1** and consists of approximately 208 hectares.

The Cardinal Creek Village Community Concept Plan is intended to guide the development of the Cardinal Creek Village Community. The following describes the mechanisms which shall guide the administration and implementation of the Cardinal Creek Village Community Concept Plan. Development must also conform to the relevant policies of City of Ottawa Official Plan.

The Concept Plan, consisting of the Land Use Plan and related text, and the Detailed Concept Plan and Urban Design Guidelines contained in the appendix, will:



Figure 1 - Subject Site

- Guide the character and form of development within the Cardinal Creek Village Community;
- Form the basis for which to consider applications for plans of subdivision, zoning and site plan approval; and,
- Provide the basis for planning of, and budgeting for infrastructure.

By an Amendment to the City of Ottawa Official Plan, the existing 'Urban Expansion Study Area' designation will be replaced by the corresponding land use designations reflective of the City of Ottawa Official Plan (such as 'General Urban Area', 'Urban Natural Feature', 'Arterial Mainstreet' and so on) for those lands subject to this Concept Plan.

Cardinal Creek Village Community Concept Plan will also be implemented by the City in accordance with the Official Plan of the City of Ottawa and, under the powers of the *Planning Act*, the *Municipal Act*, and other applicable statutes.

1.2 EXISTING LAND USE CONDITIONS

Current uses of these lands are diverse and include large lot rural residential, institutional, and nursery and landscape supply uses. Approximately 50% of the area is pasture.

The property consists of a series of four plateaus rising north to south beginning near the Ottawa River in the north at an elevation of approximately 50m ASL and stepping up towards the highest elevation at 95m ASL along the southern boundary.

1.3 ENVIRONMENTAL MANAGEMENT

The results of the existing conditions analysis and the evaluation of the post-development impacts formed the basis of the recommended environmental management strategy for the Cardinal Creek Village lands.

The recommended natural heritage system for the community is shown on the Greenspace Plan, **Figure 3**, and includes specific Urban Natural Features being: the Cardinal Creek Valley and the south tributary, as well as the west, downstream, portion of the north tributary; the remnant wooded areas of the valleylands of Cardinal Creek and the south tributary; and, the older wooded areas along the north slope south of the old railway line in the northeast portion of the site.

The natural heritage system also includes specific Major Open Space areas (refer to **Figure 2**) including deciduous forests along the east side of the community which areas will assist in providing a linkage to the Ottawa River corridor to the north, although this connection must still cross Ottawa Road 174 to the north of the site.



The natural heritage system proposed on **Figure 2** is generally consistent with the draft Natural Heritage System identified for the Cardinal Creek Subwatershed Study.



Important mitigation measures are required to protect the components of the natural heritage system and other natural environment features to be retained including: buffer setbacks with no disturbances to protect the adjacent retained feature; construction timing outside of sensitive periods; proper sediment and erosion control and protection for retained adjacent trees and forest edges; species protection (e.g. butternut trees); and so on. These mitigation measures will be defined in detail as part of the Environmental Impact Statements and Tree Conservation Reports produced for each Phase of the development as subdivision applications are submitted.

1.4 SERVICING INFRASTRUCTURE

As background to the Plan, David Schaeffer Engineering Limited and J.F. Sabourin and Associates Inc. prepared a Master Servicing Study for the Cardinal Creek Village Community. The purpose of this Study was to provide recommendations for the long term servicing of

existing and future development within the village boundary. The Study followed the Municipal Engineers Association Municipal Class Environmental Assessment (October 2000, as amended 2007 & 2011) process. It recommended that water and wastewater systems be developed to accommodate future growth. The Master Servicing Study concludes that sufficient water and sanitary capacity is available in the municipal service network.

Further, in support of the Cardinal Creek Village Community, a Stormwater Management and Drainage Plan (DSEL) and a Natural Environment and Impact Assessment Study (Muncaster) have been prepared. The objectives of the Drainage Plan are to provide a drainage and stormwater management servicing strategy that will ensure safe and efficient drainage of these lands upon development and will mitigate the impacts of development on the receiving watercourses: Cardinal Creek and the Ottawa River.

Cardinal Creek Village lies primarily within the Cardinal Creek Subwatershed, with a small portion in the northeast located within Ottawa 1 (Ottawa River) Subwatershed. The site is bisected by a tributary to Cardinal Creek, known as the “South Tributary” and abuts Cardinal Creek and the Ottawa River. A Subwatershed Study for Cardinal Creek is being completed by the City.



Storm servicing to the community will be via on-site stormwater management ponds which will outlet directly to Cardinal Creek and its tributaries or the Ottawa River.

Generally, the ponds which discharge to Cardinal Creek will be required to meet the following objectives:

- Quantity control objectives that post development flows match pre-development flows;
- Not to exceed erosion protection recommendations; and,
- Quality control objectives to the MOE Enhanced level of protection.

Generally, the ponds which discharge to the Ottawa River will be required to meet the following objectives:

- Not required to provide quantity control treatment; and,
- Quality control objectives will be to the MOE Enhanced level of protection.

Each utility company (Hydro One, Hydro Ottawa, Enbridge Gas, Bell Canada, Rogers Ottawa) has confirmed their plant and/or infrastructure is in reasonable proximity to the study area, and that

there is adequate supply to service the Cardinal Creek Village Community. Ongoing coordination with the utility companies will be required during future stages of the development approvals process.

1.5 TRANSPORTATION INFRASTRUCTURE

A key supporting document to the Concept Plan is a Community Transportation Study (CTS) that analyzes the future long-term transportation infrastructure needs of the proposed community in conjunction with the needs already established in the City's 2003 TMP/COP for the East Urban Area. This is to ensure that the vision, strategic objectives and supporting principals of the City's Transportation Master Plan will also apply to the Cardinal Creek Village Community Concept Plan.

The City is currently undertaking a review of Ottawa Road 174 to determine its future use, role and function. The recommendations of the City's review will be implemented, as appropriate, through the implementation of the Cardinal Creek Village Concept Plan.

The CTS identifies road and intersection improvements that will be necessary to accommodate growth in the broader East Urban Area and the Cardinal Creek Village Community.

The proposed collector road network in the Cardinal Creek Village Concept Plan allows for flexibility in the introduction of interim transit service to the community as each phase is developed. Interim transit service will initially take the form of peak period feeder routes that will connect to the Trim Transit Station. OC Transpo's long-term ultimate route network for the area anticipates having at least one all-day local route making use of the proposed collector roads, connecting the community with the Place d'Orleans Transit Station.

The Cardinal Creek Village Concept Plan encourages all modes of active transportation through the provision of:

- Sidewalks along at least one side of all local and collector roads;
- A central multi-use pathway along one side of the north-south major collector road; and,
- Numerous pathways and trails through the natural feature and open space areas, connecting with the Cardinal Creek where appropriate.

This active transportation network (i.e. sidewalks, pathways, trails, bike path, bike lanes) is intended to link all areas of the community with such key community elements as the Central Park, Village Core, schools, parks and adjacent communities.

1.6 COMMUNITY CONSULTATION

Consultation is an integral part of both the Planning and Class Environmental Assessment process. The planning process for the Concept Plan was collaborative and open, involving community representatives, landowners/ developers, City representatives and the public at large.

Consultation and the exchange of information was undertaken throughout the planning of the area development using a variety of methods including meetings with community associations and the general public, electronic information distribution and regular meetings with the Study Team and approval agencies.

This Public Consultation Report has been prepared to document the consultation undertaken in support of both the Planning Act and Environmental Assessment Act requirements. Consultation exceeded the minimum requirements of the legislation/processes.

The planning process was divided into three stages:

- 1) Background information and analysis;
- 2) Alternative concept plans; and,

3) Preferred concept plan.

Three (3) formal Public Meetings were held in the area of the Cardinal Creek Village development with attendance from local residents, community associations and the City of Ottawa. The Public Meetings were held on June 27, 2012, September 25, 2012, and November 29, 2012. Additional meetings were held with area land owners and community groups as well as regulatory approval agencies and various City of Ottawa departments. Scheduling of consultation opportunities corresponded to key project milestones throughout the process.

2. Planning Framework

The following provides a brief summary of the Provincial and City planning policy framework that underpins the Cardinal Creek Village Concept Plan.

2.1 PROVINCIAL POLICY STATEMENT (2005)

The Provincial Policy Statement provides direction on matters of provincial interest. This interest focuses on the management of growth based on the efficient use of land and development. Specifically, “healthy, liveable and safe communities can be achieved by:

- Accommodating an appropriate range and mix of residential, employment (including industrial, commercial and institutional uses), recreational and open space uses to meet long-term needs
- Avoiding development and land use patterns which may cause environmental or public health and safety concerns
- Avoiding development and land use patterns that would prevent efficient expansion of settlement areas
- Promoting cost-effective development standards to minimize land consumption and servicing costs
- Ensuring that necessary infrastructure and public services are/will be available to meet current and projected needs

Further, the Provincial Policy Statement declares that “settlement areas” be the focus of growth. It states that:

- Development patterns use land, resources, infrastructure and public services efficiently

- Impacts on air quality and climate change be minimized
- Opportunities for intensification and redevelopment be identified
- Phasing policies be established to ensure orderly growth

2.2 CITY OF OTTAWA OFFICIAL PLAN

The City of Ottawa most recent comprehensive five year Official Plan Review (Official Plan Amendment (‘OPA’) No. 76) was adopted by the Council of Ottawa on June 24, 2009 and was approved with the modifications by the Minister of Municipal Affairs and Housing on December 24, 2009 and appeals were finally resolved by the Ontario Municipal Board in June 2012.

The evaluation undertaken as part of OPA 76 determined that there was a need for approximately 850 additional hectares over the next 20 years (2031) within the urban boundary. A city wide analysis was commenced to determine the location of these additional lands. Eleven candidate areas were identified by staff and analyzed on a comparative basis. Cardinal Creek Village was identified as Candidate Area #11. It consistently scored highly against the City’s evaluation criteria.

Accordingly, the Cardinal Creek Village lands were designated ‘Urban Expansion Study Area’ and are subject to a policy framework that requires a number of comprehensive studies to evaluate the area’s land use potential (including, among other matters, natural heritage, servicing and transportation) and determine a detailed land use concept for the lands.

This Concept Plan reflects the outcome of those studies in conjunction with the community consultation process described in Section 1.0.

The following additional Official Plan policies set the direction and guide the preparation of this Plan.

- Community Design and Compatibility
- Greenspace Master Plan
- Affordable Housing
- Schools and Community Facilities
- Transportation and Cycling
- New park and leisure areas
- Recreational pathways
- Infrastructure

As previously noted, the existing 'Urban Expansion Study Area' designation for the lands subject to this Concept Plan, will be replaced by the corresponding land use designations reflective of the City of Ottawa Official Plan, through an Amendment to the Official Plan.

2.3 GUIDING PRINCIPLES

The Guiding Principles establish the qualitative principles for the development of the Cardinal Creek Village Concept Plan and were developed through the consultation process and are consistent with the City's Official Plan.



PRINCIPLE 1: Create an Environmentally Sustainable Community

- *The Cardinal Creek and other significant natural heritage features provide important contributions to the greenspace network and will be protected within the Cardinal Creek Village Community. Not only do these green spaces have environmental value, they also provide open space and active/passive recreational amenities and will contribute to a healthy community.*
- *Development within Cardinal Creek Village will promote active transportation modes including pedestrian and cycling, as well as transit usage in order to reduce energy consumption patterns associated with automobile travel.*
- *Development will be encouraged to achieve green building standards and support energy efficiency and environmental sustainability.*



PRINCIPLE 2: Create Distinct Liveable Neighbourhoods

- *One of the Ottawa Official Plan's strategic directions is that "...growth will be managed in ways that create complete communities with a good balance of facilities and services to meet people's everyday needs, including schools, community facilities, parks, a variety of housing, and places to work and shop." Cardinal Creek Village Community will be designed to create unique residential neighbourhoods that serve the needs of residents of different lifestyles and incomes. Neighbourhoods should contain focal points, such as schools, parks and green spaces, which will serve as distinctive local landmarks and gathering places and walking destinations.*
- *Attention to design will help create attractive communities where buildings, open space and transportation work well together.*



PRINCIPLE 3: Provide a Network of Community Facilities

- *The community should be designed around identifiable focal points which include uses that attract and are accessible to all residents and provide a 'sense of place'. In addition, parks, schools, and open space, should be well-distributed through the community and easily accessible to residents.*
- *The greenspace areas should also be linked by trails, pathways, stormwater management facilities, schools and parks to create a network of community facilities that is accessible throughout the community.*



PRINCIPLE 4: Provide an Opportunity for a Mix of Residential Housing Types and Densities

- *Residential neighbourhoods should provide a range of housing types (single, semis, townhouse and apartments) to meet the needs of a wide range of people.*



PRINCIPLE 5: Encourage the Development of an Attractive Commercial Area

- *Cardinal Creek Village residents should have access to an appropriate range of commercial facilities that are immediately accessible to the community and developed with other commercial and/or residential uses.*
- *Commercial uses (in particular, those central to the community) shall be developed in a manner which is consistent with the village character of community (through their scale, built-form and architectural expression) and be accessible by pedestrians, cyclists as well as vehicles.*



PRINCIPLE 6: Provide Effective, Efficient, Timely Transportation that is Integrated with Land Uses

- *Transportation infrastructure should proceed in concert with development and opportunities for alternative means of financing such infrastructure will be considered.*
- *A modified grid road system, sidewalks and pathways, with a high degree of permeability and accessibility throughout the community, will support a diverse range of land uses and modes of transportation. Roads, sidewalks and pathways should link the community.*
- *Public transit (including rapid transit) will support and serve the community.*
- *Alternative engineering development standards will be considered where such standards can achieve a quality community while maintaining appropriate environmental, operating and maintenance standards.*
- *Cardinal Creek Village should be designed to accommodate all modes of transportation within a development pattern that emphasizes walking, cycling and transit over automobile travel.*

PRINCIPLE 7: Ensure Efficient and Timely Phasing of Future Infrastructure

- *The effective use of existing, and the provision of new servicing infrastructure, will be employed in order that development in Cardinal Creek Village achieves the efficient and optimal use of such facilities.*
- *Alternative development standards will be considered where such standards can achieve a quality community while maintaining appropriate environmental, operating and maintenance standards.*
- *Servicing infrastructure should proceed in concert with development and opportunities for alternative means of financing such infrastructure will be considered.*

3. Land Use Plan

The following establishes the Cardinal Creek Village Concept Plan that has resulted from: the broad policies of the Ottawa Official Plan; including those related to Urban Expansion Study Areas; community consultation; and the technical assessment of the area's opportunities and constraints.

3.1 LAND USE PLAN OBJECTIVES

The following objectives form a framework for the Cardinal Creek Village Land Use Plan.

Land Use

- *To encourage compact urban development forms that are pedestrian oriented and promote community interaction;*
- *To ensure a wide range of community facilities and services appropriately located to meet the needs of local residents;*
- *To encourage development densities in locations that support the efficient and effective operation of the public transit system;*
- *To protect the natural environment and incorporate key natural heritage features and open spaces into the land use plan;*
- *To create open space and recreational opportunities that focus on the Cardinal Creek and Ottawa River natural features; and,*
- *To recognize the potential for long-term intensification.*

Residential Development

- *To promote opportunities for a mixture of low, medium and high density housing forms such that approximately 3,500 units can be accommodated at build-out;*
- *To have regard to Provincial and municipal planning policies and initiatives when considering new residential development; and,*
- *To provide built form that addresses the street and reinforces the pedestrian streetscapes.*

Employment Opportunities

- *To provide viable locations for appropriate employment activities; and,*
- *To permit home-based business within residential neighbourhoods.*

Services

- *To ensure that all development occurs on the basis of full urban water and sanitary sewer services;*
- *To implement and maintain a stormwater management system which is integrated with the greenspace system; and,*
- *To ensure that orderly development proceeds and is phased in accordance with the provision of services.*

Transportation and Street Pattern

- *To encourage a land use pattern and transportation system that promotes accessibility by all forms of transportation;*
- *To encourage a framework for the pathway system that provides residents with active transportation alternatives to reach their destinations and thereby reduce their greenhouse gas emissions;*
- *To encourage a road, sidewalk and pathway network that provides connectivity;*
- *To support alternative road rights-of-way that support compact development and/or provide opportunities for the inclusion of active transportation facilities; and,*
- *To ensure that development is designed to facilitate efficient and effective public transit operations.*

Greenspace Opportunities

- *To establish a network of greenspaces which are connected by greenway linkages and pedestrian sidewalks to ensure accessibility for all residents;*
- *To provide an equitable distribution of public community and neighbourhoods parks within reasonable walking distances of all residents;*
- *To ensure the protection of significant natural features such as the Cardinal Creek and its tributaries and various woodlots; and,*
- *Identify open space corridors along the Cardinal Creek, watercourses and floodplain lands as a way to provide recreational opportunities that are compatible with the natural features and contribute to healthy lifestyles.*

3.2 THE LAND USE PLAN

The land use plan for Cardinal Creek Village is illustrated on **Figure 2** and includes four general land use categories in the Land Use Plan, as follows:

- Residential Areas (which shall permit a variety of low and medium density residential uses);
- Arterial Mainstreets;
- Urban Natural Features; and,
- Major Open Space.

A detailed illustration of the implementation of the Land Use Plan has been provided in the Detailed Concept Plan (found in the **Appendix 'A'**) which also demonstrates the local road and active transportation network, locations of community facilities (such as schools and parks), stormwater infrastructure and so on.

The intent of the Cardinal Creek Village Concept Plan is to create a complete residential community with a full range of housing choices (including affordable housing) that is complemented and supported by appropriate community facilities such as parks and schools, while providing opportunities to work and shop in close proximity to the residential neighbourhoods.

A 'center' to the village was considered an important community-defining element of the plan and accordingly, the intersection of the proposed north-south major collector road and Old Montreal Road was identified as a central area. In this location, a variety of land uses (such as local commercial uses, higher density residential uses and a neighbourhood park) have been provided to create an active, interesting and diverse 'Village Core'. The 'Village Core' will be supported by the creation of a traditional main street character along Old Montreal Road, and will support potential future transit service along this road.

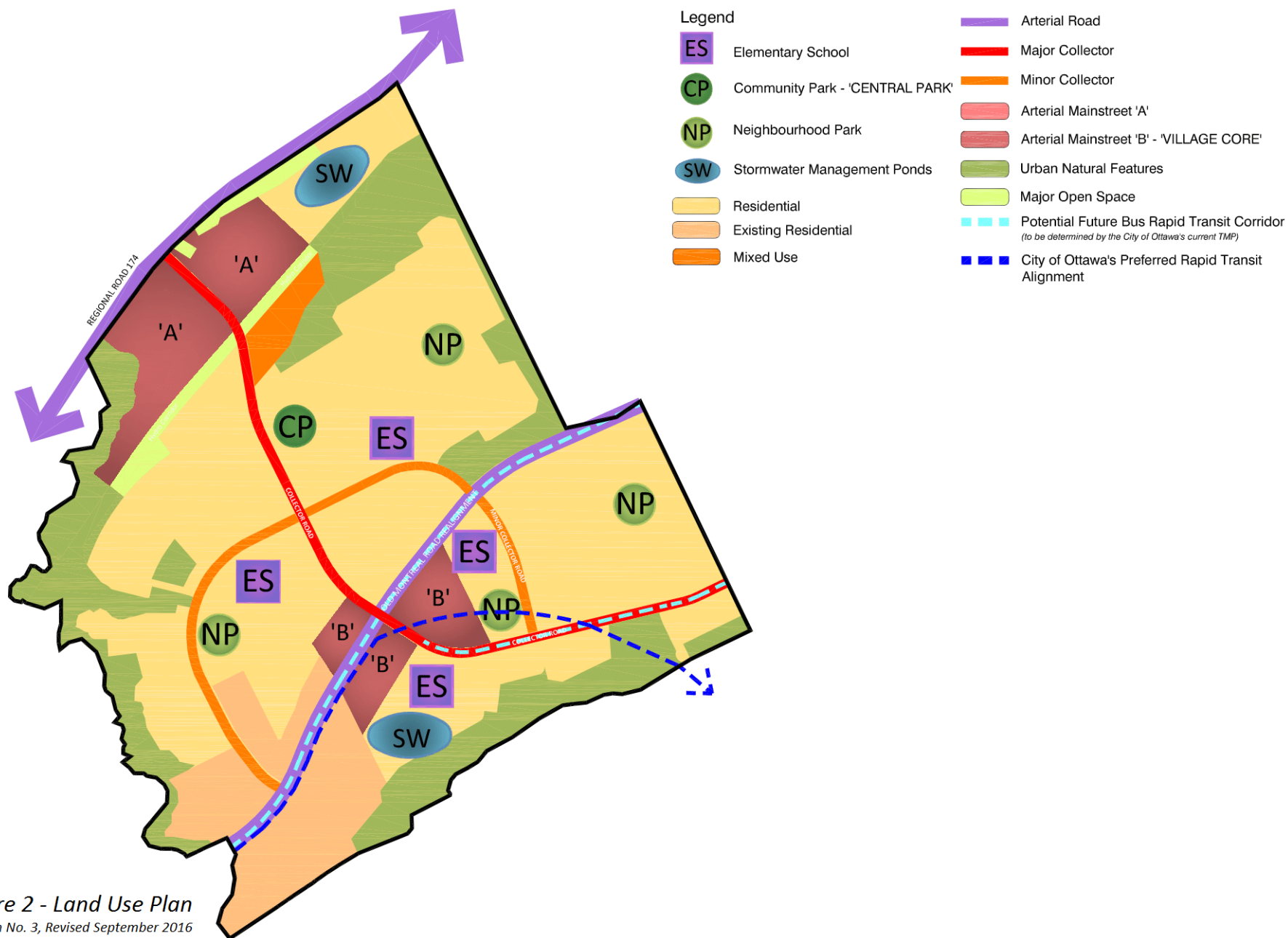


Figure 2 - Land Use Plan

Revision No. 3, Revised September 2016

Approved by Council 22 February 2017

The Cardinal Creek Village Community's primary community facility is proposed to be a 'Central Park', situated on the new north-south major collector road, with views over the escarpment ridge towards the Ottawa River. It is intended that this park will serve the greater Community and provide a gathering place and animated public open space for residents. The park could potentially incorporate a variety of active recreational opportunities including sports fields, tennis courts, children's play areas, as well as pedestrian walkways, and seating areas.

The Cardinal Creek Village Community is, to some extent, partitioned into four sectors by Old Montreal Road and the proposed north-south major collector road, together with a larger mixed-use area along Ottawa Road 174. Therefore, the distribution of land uses, particularly community amenities such as parks and schools, is intended to provide an equitable distribution of uses so that all residential areas of the community have access to such uses and facilities. An integrated road and active transportation (e.g. pedestrian walkways and multi-purpose pathways) network serves to connect the various sectors and land uses.

The topographic character of the area has also significant influence on the physical character of the area with respect to the effect of grades on the location of roads, servicing infrastructure and lands uses requiring level site areas (e.g. parks). However, this topographic character also provides opportunities for views and vistas from within the community toward the Ottawa River and Gatineau hills and can add character to the overall community.

The distribution of land uses as shown on **Figure 2** is as follows:

Land Use	Net Area (ha)	Percentage
Residential Area	63	30%
Existing Residential	18	8%
Arterial Mainstreet / Mixed Use	22	10%
Major Open Space	5	2%
Urban Natural Features	39	19%
SWM Ponds	6	3%
Community and Neighbourhood Parks	10	5%
Schools	10	5%
Roads/Infrastructure	36	18%
Total	208	100%
<i>Note: Data includes only the Bus Rapid Transit Corridor.</i>		

Table 1- Land Use Distribution (by category)

The intent and permitted uses of each land use category contained within the Cardinal Creek Village Concept Plan is outlined in the following.

All land uses shall be subject to the Urban Design Guidelines contained in Section 4.0.

3.3 USES PERMITTED IN ALL LAND USE CATEGORIES

The following uses shall be permitted in all land use categories contained within the Cardinal Creek Village Concept Plan:

- Places of worship may be permitted in all Residential and Arterial Mainstreet land use categories provided such uses

are located along arterial or major collector roads and shall be subject to the design guidelines;

- Day care facilities may be permitted in all land use categories provided such uses are located along arterial or collector roads; provide adequate and appropriate outdoor play space; and, shall be subject to the design guidelines;
- Public parks;
- Libraries;
- Diplomatic missions; and,
- Public utilities/infrastructure and wireless telecommunications infrastructure.

3.4 USES PERMITTED IN ALL RESIDENTIAL CATEGORIES

The Official Plan establishes a range of uses that are permitted in all residential areas, including:

- Small-scale retail stores to provide convenience services and shopping within walking distance of those living and/or working within the Community, provided such uses are located at the collector/arterial road intersections or a collector road intersection and the site size does generally not exceed 1.0 hectare;
- Bed and Breakfast establishments
- Secondary dwelling units (including garden suites);
- Group homes;
- Retirement homes;
- Care facilities;
- Home-based businesses;
- Home-based day care; and,
- Public parks.

Such uses shall be permitted within all residential land use categories contained in the Cardinal Creek Village Concept Plan.

3.5 RESIDENTIAL AREAS

Residential land uses shall comprise the majority of the development within the Cardinal Creek Village Community. Residential land uses shall include residential dwellings of similar mass and scale as follows:

- Detached dwellings
- Semi-detached dwellings
- Linked detached dwellings
- Grade-related multiple-attached dwellings (such as townhouses)

Multiple attached dwellings shall be distributed throughout the Residential Areas to provide a complete range of grade-related housing opportunities (including affordable housing) and create diverse and attractive neighbourhoods. Medium density residential uses consisting of various types of townhouses and low-rise apartments may be permitted through a Zoning By-law amendment along arterial roads and at the intersections of arterial roads and collector roads provided that the site size is generally not greater than 0.5 hectares

In accordance with the Official Plan, a minimum of 45% and not more than 55% of the total units within the Cardinal Creek Village Concept Plan shall be single-detached housing and a minimum of 10% of dwelling units shall be apartments units (which may include alternative forms of multiple attached dwellings that achieve similar residential densities, such as stacked townhouses).

Accessory apartments as second dwelling units may be permitted in all single-detached and semi-detached housing forms, subject to the provisions of the implementing zoning by-law.

For existing residential areas located along Old Montreal Road (including the existing place of worship) a conservative development potential (for low and medium density residential uses) has been accommodated within Tables 1 and 3 and the Cardinal Creek Village infrastructure has been designed to accommodate this redevelopment potential. However, there are certain constraints to the redevelopment of these existing uses, including, for example, the need for land assembly between independent landowners and topographic constraints which may affect the timing and quantum of development achieved on these lands.

Development within a Residential Areas designation shall have regard for the Urban Design Guidelines found in Section 4.0 of this Concept Plan.

3.6 ARTERIAL MAINSTREET

The Arterial Mainstreet areas are intended to accommodate a mix of residential and non-residential land uses to serve the personal and commercial needs of both the Cardinal Creek Village Community and adjoining communities.

Uses permitted with the Arterial Mainstreet 'A' area along Ottawa Road 174 may be oriented primarily to commercial uses in recognition of the higher order traffic function associated with Ottawa Road 174 and its role in connecting communities. However, higher density residential uses shall also be encouraged in this area.

Development within an Arterial Mainstreet area shall have regard to 'Urban Design Guidelines for Development along Arterial Mainstreets' (2006) and the Urban Design Guidelines found in Section 4.0 of this Concept Plan. Development proposals will be subject to the review of the City of Ottawa Urban Design Review Panel.

Permitted uses in the Arterial Mainstreet 'A' area shall include:

- Retail and convenience stores, including supermarkets and one large-format retail store
- Banks or other financial services
- Service and repair uses
- Personal service uses
- Business, medical and professional offices
- Restaurants
- Service station (maximum of one)
- Institutional uses such as hospitals, retirement homes, residential care facilities or medical facilities.
- Low-rise Apartments
- Mid-rise Apartments
- Multiple-attached dwellings
- Stacked dwellings
- Live-work units
- Dwelling units as part of a mixed-use building

Automotive dealerships shall not be permitted in any Arterial Mainstreet categories.

Uses permitted within the Arterial Mainstreet 'B' area along Old Montreal Road may be oriented to primarily local servicing commercial and a range of residential uses. The design, built-form and streetscape within this area will advance a human-scale pedestrian friendly environment.

Uses permitted with the Arterial Mainstreet 'B' may focus primarily on residential uses either in freestanding buildings or in mixed-use buildings that contain commercial uses. Permitted uses shall include:

- Retail and convenience stores not exceeding 2,790 square metres floor area per store

- Banks or other financial services
- Service and repair uses
- Personal service uses
- Business, medical and professional offices
- Private parks and open spaces
- Restaurants
- Institutional uses such as hospitals, retirement homes, residential care facilities or medical facilities.
- Low-rise Apartments
- Mid-rise Apartments
- Multiple-attached dwellings
- Stacked dwellings
- Live-work units
- Dwelling units as part of a mixed-use building

Drive-through establishments shall not be permitted in the Arterial Main Street category along Old Montreal Road.

Prior to the filing of a zoning by-law amendment and an application for site plan control approval for any lands within the Arterial Mainstreet 'A' land use category, the land owner/developer and the City will undertake a thorough collaborative design process to prepare a demonstration plan to guide the future intended development of these lands, and to develop a detailed set of design guidelines that will augment the site design and built form guidelines for the Arterial Mainstreet 'A' area contained in Section 4.5 and the City's Urban Design Guidelines for Development along Arterial Mainstreets. The collaborative design process will be initiated by the land owner/developer and is to include public consultation. Once completed, the demonstration plan and supporting detailed design guidelines are to be approved by Planning Committee and appended to the Concept Plan.

The demonstration plan will, as a minimum:

- *Illustrate how the site organization and built form addresses the design guidelines and the land use objectives contained in the Concept Plan;*
- *Illustrate how the site organization has been designed to take advantage of the views of the Ottawa River and to make those views accessible to the public;*
- *Contain a network of pedestrian connectivity, both internal and external to the site; and,*
- *Establish a maximum floor area for any single non-residential use and/or building.*

3.7 MIXED USE AREA

The Mixed Use area located along the major collector road is intended to complement the adjacent Arterial Mainstreet 'A' areas along Ottawa Road 174 by providing additional opportunities for a mix of residential and non-residential land uses to serve the personal and commercial needs of both the Cardinal Creek Village Community and adjoining communities.

Uses permitted with this Mixed Use area may include residential uses either in freestanding buildings or in mixed-use buildings that contain commercial uses. Permitted uses shall include:

- Retail and convenience stores not exceeding 2,790 square metres floor area per store
- Banks or other financial services
- Service and repair uses
- Personal service uses
- Business, medical and professional offices
- Private parks and open spaces
- Restaurants
- Institutional uses such as hospitals, retirement homes, residential care facilities or medical facilities.

- Low-rise Apartments
- Mid-rise Apartments
- Multiple-attached dwellings
- Stacked dwellings
- Live-work units
- Dwelling units as part of a mixed-use building

Development within the Mixed Use Area shall be subject to the Urban Design Guidelines found in Section 4.0 of this Concept Plan.

3.8 GREENSPACE NETWORK

The greenspace network is comprised of:

- Lands designated Urban Natural Features;
- Lands designated Major Open Space;
- Parks;
- Stormwater management facilities; and,
- Pathways and other active transportation linkages.

The existing watercourses, woodlot(s) and (former) hydro corridor provide initial structuring elements to an open space network within the Cardinal Creek Village Community. These elements will be augmented by and integrated with, additional open spaces in the form of parks and stormwater management facilities in order that a full range of active and passive recreational opportunities such as sports fields, play areas, passive leisure areas, pathways, and recreation facilities can be accommodated.

The open space and parks shall be connected by a system of multi-use pathways and pedestrian walkways as discussed further in Section 3.7.6.

The Official Plan identifies a target of total public greenspace of 4.0 hectares per 1000 population in order to fulfill objectives expressed in the *Greenspace Master Plan - Strategies for Ottawa's Urban Greenspaces*. This represents approximately 16-20% of gross land area and includes stormwater management facilities, pathways,

flood plains, hazard lands, parks, natural heritage features/areas, hydro corridor, etc..

Figure 3 illustrates the resultant integrated greenspace network that could be achieved through the implementation of the Cardinal Creek Village Concept Plan. As previously noted, the greenspace network is comprised of urban natural features, major open space features, parks, stormwater management facilities, pathways and other linkages.

The Official Plan identifies a target of total public greenspace of 4.0 hectares per 1000 population, or approximately 16-20% of gross land area (including stormwater management facilities, pathways, parks, natural heritage areas, hydro corridor, etc.). Therefore, the Detailed Concept Plan illustrates the means by which this Official Plan target for greenspace could be achieved.

Greenspace by Type	Area (ha)	Percentage
Urban Natural Features	39	65%
Major Open Space	5	9%
Community and Neighbourhood Parks	10	16%
Stormwater Management Areas	6	10%
Total Greenspace	60	100%
Percentage Greenspace to Total Gross Land Area		29%
<i>Note: Data includes only the Bus Rapid Transit Corridor.</i>		

Table 2 - Greenspace

The Official Plan also supports the Greenspace Master Plan's target that all residential areas are to be located within 400 metres of such greenspaces.

Cardinal Creek Village is bordered by the significant Greenspace and recreational opportunities offered by the Ottawa River (including the nearby Petrie Island Park). Active transportation connections to these resources are an important component of the community structure.



Figure 3 - Greenspace Plan

Note: The Greenspace Plan reflects only the Bus Rapid Transit Corridor.

3.8.1 Urban Natural Feature

The Cardinal Creek valley and associated tributaries are designated as Urban Natural Features and shall be subject to the policies of Section 3.2.2 of the Official Plan. Such lands shall be dedicated to the City.

In addition, the cedar and maples forested areas in the northeast area of the community, along the escarpment ridge, shall also be designated as Urban Natural Feature and subject to the policies of Section 3.2.3 of the Official Plan. No development is permitted within 30 m of an Urban Natural Feature until an EIS is completed for the area.

3.8.2 Major Open Space

The Major Open Space category applies to natural areas not used for park purposes or that are constrained from development by wooded areas, such as those along the easterly boundary of the community (between Ottawa Road 174 and Old Montreal Road). These areas are designated as Major Open Space and shall be subject to the policies of Section 3.3 of the Official Plan.

Uses permitted on lands designated Open Space generally includes: passive recreation, pathways, community gardens, environmental preserves and education areas.

The boundaries of the Major Open Space category are based on current mapping information. The precise boundary of open space shall be defined through the development approvals process and established in the zoning by-law. As a result, when more information is obtained, minor adjustments may be made to the boundary by zoning amendment only. Major changes or the removal of open space shall require an amendment to the Concept Plan.

For land in private ownership that is designated Major Open Space, access to these lands is not permitted without the consent of the property owner.

3.8.3 Parks

The Official Plan directs that *“good parks and leisure areas are well-distributed within communities, easily accessible from homes and linked to the greenspace network”*.

The Cardinal Creek Village Concept Plan responds to this policy directive through a distribution of Neighbourhood and Community Parks which serve the needs of the Cardinal Creek Village Community and the broader area. A successful parks system includes parks of varying sizes, equally distributed throughout the community.

A system of public parks has been planned for within the Cardinal Creek Village Community providing opportunities for a range of recreational activities (including, for example, playgrounds, sports fields, ice rinks, splash pads, trails and unstructured open spaces).

The location and size of Neighbourhood and Community Parks has been conceptually illustrated on the Land Use Plan. A refinement of these park locations and/or block sizes may occur during the processing of subdivision plans in order to ensure that the requirements of the City’s Park & Pathway Development Manual are met.

The Community Park is geographically located north of Old Montreal Road and within approximately a 10-minute walking distance from the surrounding neighbourhoods. This park will incorporate a variety of active recreational opportunities such as sports fields, tennis courts, splash pads, children’s play areas, pedestrian walkways, and seating areas or other facilities determined by the City of Ottawa. Visual amenities or focal points should be included in park designs at pedestrian nodes or gathering areas. The Community Park, which will have a minimum site area of 3.2 hectares, shall be located on major or minor collector roads.

The Community Park has frontage on collector roads in recognition that the users may come from a geographic area larger than the

immediate neighbourhoods. Notwithstanding, the Community Park has been located within a 10-minute walking distance of most residential areas within Cardinal Creek Village.

The Community Park located along the north-south major collector road shall function as the major, central community amenity (the 'Central Park') which takes advantage of the significant views towards the Ottawa River. The Central Park may be designed to provide a broad range of active and passive recreational activities consistent with its role as a community gathering space. In addition, a stone house (which is not a designated heritage building) is located within this area and provides an opportunity for adaptive re-use in conjunction with the overall park design and programming. Such opportunity will be considered by the City during the subdivision approval stage. The final determination of the functions and facilities to be contained within these parks shall be undertaken by the City in collaboration with the future residents of the community.

As a focal point, Neighbourhood Parks will provide a local gathering and recreational space for nearby residents. They are generally



Stone House

located in the centre of each neighbourhood within approximately a 5-minute walking distance for most residents. Each neighbourhood park will incorporate a variety of active recreational opportunities;

for example, children's play areas, outdoor rinks, splash pads, pedestrian walkways, and seating areas or other facilities determined by the City of Ottawa. The size of a neighbourhood park is to be no less than 1.2 ha. and these parks have been located within a 5-minute walking distance of most residential areas within Cardinal Creek Village.

With respect to Parks and Leisure Areas, the Official Plan identifies a target of 2.0 hectares per 1000 population, or approximately 8-10% of developable land area. Parkland dedication in the Cardinal Creek Village Concept Plan shall be provided in accordance with the *Planning Act* requirements for residential and non-residential uses.

3.8.4 Schools

The Cardinal Creek Village Community will accommodate up to four (4) elementary schools, as requested by the four area School Boards. The location and size of these school sites have been conceptually illustrated on the Land Use Plan and reflects:

- The general locational criteria of the respective School Boards;
- The minimum school site area required by each School Board (approximately 2.42ha – 2.8ha (6Ac – 7Ac); and,
- The minimum school site lot frontage and site configurations standards of each School Board.

The City of Ottawa Parks, Recreation and Cultural Services Department have directed that co-location of schools and Community or Neighbourhood Parks shall not be contemplated within the Cardinal Creek Village Community.

The precise location and configuration of each school site parcel shall be determined through the approval of Plans of Subdivision.

The assignment of schools sites between the Schools Boards will also be finalized through Plans of Subdivision based on the School Boards' requirements at that time. Where one School Board does not

exercise its option for a specific school site, the remaining School Boards may consider acquiring the site.

School sites shall be zoned for both institutional and residential use in order that, in the event that no School Board acquires a school site established in a Plan of Subdivision, the lands shall be developed for residential land uses. The type and range of such residential uses shall be in accordance with the residential land uses described in Section 3.4.

3.8.5 Stormwater Management Facilities

The Stormwater Management facilities provide lands to accommodate the stormwater management infrastructure requirements: to address fish habit objectives; and, contribute additional passive greenspaces within the community. As such, the design of these facilities shall incorporate natural landscape features and, where appropriate, pathways that are linked to the overall pathway system.

The location and size of these stormwater management facilities has been conceptually illustrated on the Land Use Plan

Public pedestrian pathways shall also be permitted within these facilities.

3.8.6 Pathway System

An integrated network of multi-use pathways, cycling facilities and sidewalks will facilitate pedestrian movement throughout the Cardinal Creek Village Community, and provide connections to adjacent communities. The pathways and sidewalks will also connect the greenspaces within and external to the Cardinal Creek Village Community.

The hydro corridor located south of, and parallel to, Ottawa Road 174, can accommodate a multi-use pathway to provide a strong east-

west corridor to connect Cumberland and Clarence-Rockland to the east with Orleans and existing transit services to the west.

A major multi-use pathway shall be incorporated into the north-south major collector road right-of-way which is intended to provide a wider pathway framed by a double row of street trees along one side of the right-of-way. The City of Ottawa shall consider an alternative road cross-section design in order to accommodate this pathway.

Internal to the Cardinal Creek Village Community there will be a system of multi-use pathways and on-road sidewalks intended to link all schools, parks and other community facilities, together with open spaces such as the Cardinal Creek and Ottawa River.

Finally, on-road cycling facilities shall be provided along the major collector road and, subject to the City's relevant studies, may also be provided along Ottawa Road 174 and Old Montreal Road.

The City's hierarchy of pathways includes a variety of widths and material standards depending on the location and programme requirements. Normally off-road pathways are paved with a centre yellow line. However, pathways along rivers and watercourses shall not be paved in order to respect the natural heritage and open space features. Further investigation will be required to confirm the technical feasibility of the proposed pathway routes and conceptual watercourse crossings, in order to ensure that they will not impact natural features, watercourses and the Cardinal Creek and that appropriate engineering standards (such as grades) can be achieved. Where pathways are determined not to be technically feasible, their construction will not be required.

3.9 DEVELOPMENT POTENTIAL

Tables 3 and 4 set out the approximate potential dwelling units and population projections arising from the Cardinal Creek Village

Concept Plan (based on the Detailed Concept Plan found in **Appendix 'A'**).

Land Use	Density (uph)	Area (ha)	Units (Rounded)	Unit Type by Percentage
Low Density (singles and semis)*	26 - 28	64	1,660 – 1,790	55% - 52%
Medium Density*	50 - 60	18	900 – 1,060	30% - 31%
Arterial Mainstreet / Mixed Use	60 - 75	8	460 - 580	15% - 17%
Total Units			3,020 – 3,430	100%
Note: * Assuming 75% of existing residential area would be developed for Low Density and 25% for Medium Density.				

Table 3- Dwelling Unit Projections

The City of Ottawa Official Plan requires:

- A residential housing mix of:
 - Minimum 45% and maximum 55% single-detached units
 - 10% apartments (minimum)
 - Balance for multiple dwellings
- A minimum average net residential density target of 34 units per hectare for all residential uses.

Table 3 demonstrates the conformity of the greenfield development areas contained within the Cardinal Creek Village Concept Plan with these policies.

Table 3 reflects representative average development densities and shall not be considered to be the maximum density permitted by

these land use categories. Individual development proposals may exceed the density parameters shown on this table.

The overall average development density of 34 – 42 units per net hectare does not constitute a maximum average density, but a density target and therefore, compact development that achieves additional densities while having regard to all other policies of this Plan, shall be permitted. The Concept Plan meets/surpasses the densities required in the Official Plan.

Table 4 represents the potential population to be achieved within the Cardinal Creek Village Community based on the estimated development potential assumptions illustrated in **Table 3**.

Land Use	Household Size (ppu)	Units (Rounded)	Population (Rounded)
Low Density	3.3	1,660 – 1,790	5,440 – 5,860
Medium Density	2.5	900 – 1,060	2,220 – 2,660
Mixed Use	1.8	460 - 580	830 – 1,040
Total Population (Approximate)			8,490 – 9,560

Table 4 - Population Projections

In addition, employment opportunities will be created within the Cardinal Creek Village Community (as set out on **Table 5**) to augment the significant employment provided within the area to the west.

Land Use	Employment Density	Area	Employment (rounded)
Arterial Main Street	50 jobs/ha	11	550

(assumes 50% for commercial uses)			
Schools	40 jobs - elementary school	4 elementary schools	160
Home Occupations and Live-Work	10 jobs/100 units	3,020 – 3,430 total housing units	–302 - 343
Total Employment (Approximate)			1,012 – 1,053

Table 5 - Employment Projections

Tables 3, 4, and 5 represent potential population, housing and employment targets that could be achieved based on certain assumptions regarding development densities, residential unit mix and so on. The information on these Tables shall therefore only be used as a guide in conjunction with the Implementation policies set out in Section 6.0.

4. Community Design Guidelines

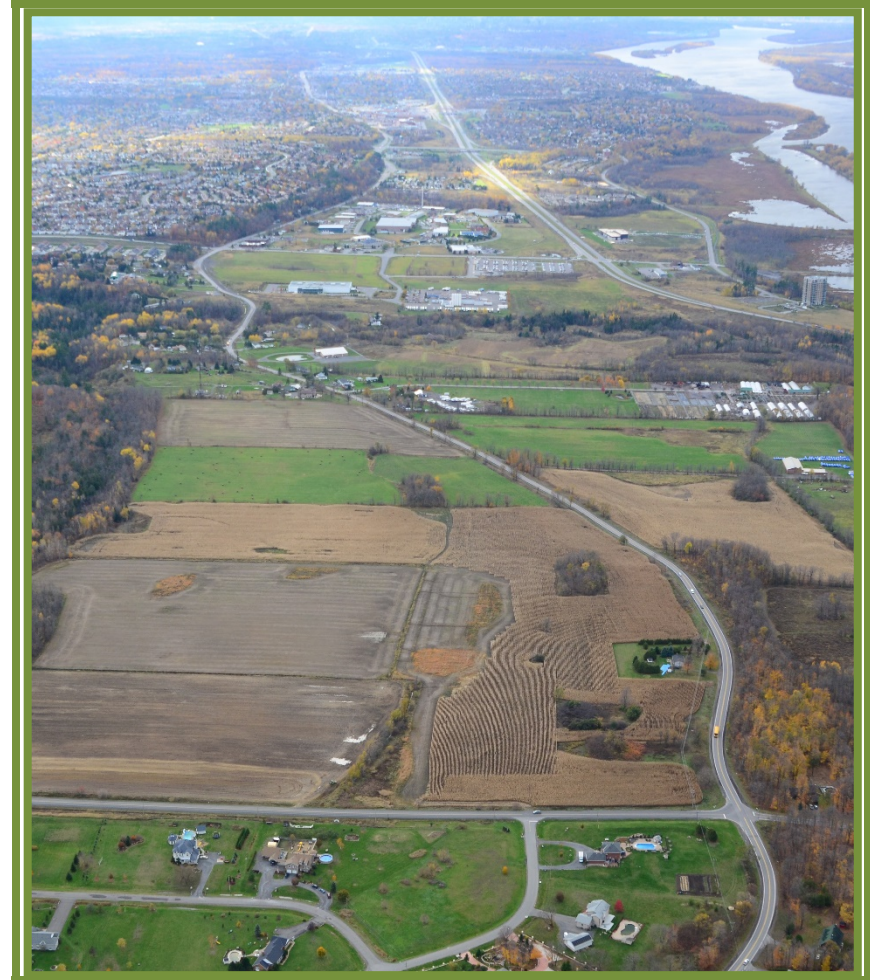
The Land Use Plan draws upon the physical, locational, visual and contextual factors in the area affected by the plan. This generated a set of principles of design and development and a number of guidelines for development in key aspects of the plan.

The following design guidelines provide a framework of the design criteria for the overall identity and structure of the proposed Cardinal Creek Village, as well as for the appearance of new buildings, streetscape, parks and open spaces within the community. The purpose of this set of design guidelines is to guide developers, builders, designers and City staff in achieving a consistently high quality design standards throughout the community building process.

These design guidelines, in conjunction with the design policies of the Official Plan and other relevant city-wide design guidelines (such as Urban Design Guidelines for Greenfield Neighbourhoods), would ensure the final build out of the Cardinal Creek Village to be an attractive, livable and healthy community with distinct identity.

4.1 DESIGN VISION

The proposed Cardinal Creek Village is envisaged to be a contemporary master-planned community which would embrace the asset of the existing natural heritage features (Ottawa River, Cardinal Creek, and woodlots etc.) and capture the expanded usage of the existing physical attributes (such as Transmission corridor, etc.)



Design of this community is predicated on a walkable, transit supportive street network, an integrated open space linkage system, and a well-defined community core and mixed use areas at strategic locations to serve the community and beyond. Each distinctive and liveable neighbourhood will have a park, school or other amenities within walking distance. Well-designed streetscape and built form will be promoted in response to the location and intensity of the land uses.

The following guiding principles, prepared through a consultative process, will form the foundations of creating a vibrant, attractive, livable, healthy and sustainable community:

- Create distinctive liveable neighbourhoods;
- Create integrated, safe, passive and active green spaces;
- Create a central focus for the community;
- Provide effective, efficient, timely transportation that is integrated with land uses and with adjacent communities;
- Ensure efficient and timely phasing of future infrastructure;
- Create an environmentally sustainable community.
- Forested areas should be conserved whenever possible;
- The rural and natural landscape character of the Cardinal Creek should be conserved;
- Old Montreal Road is the gateway into Cardinal Creek Village and development along it should have a consistent level of design quality.
- Developments that are visible from Ottawa Road 174 should present a positive image.
- The views and vistas into and from the Concept Plan area should be optimized and enhanced whenever possible;
- Developments on the ridge should present an attractive skyline that is integrated with the existing forested areas;
- Park, open space and community uses should be designed to facilitate convenient and safe pedestrian, cycling and other non-motorized recreational activities. Pedestrians and

cyclists should be given priority in consideration of land use and road pattern design;

- Infrastructure works such as bridges over the creek, drainage corridors, and stormwater management facilities, should be architecturally designed and serve as visual and recreational amenities; and,
- New collector roads should connect with and extend the existing arterial road system.

4.2 COMMUNITY STRUCTURE

Structuring elements of the Cardinal Creek Village include the following:

Precincts and Neighbourhoods

Cardinal Creek Village is composed of a series of precincts and neighbourhoods at different scales. From an urban design perspective, four distinct precincts are naturally defined by the existing Old Montreal Road and the north-south major collector road.

The precincts will be carefully designed with unique liveable, urban type neighbourhoods each with its own character, sense of place and distinct identity. Each neighbourhood will provide for a range of housing options and opportunities for choice of housing tenure. Each neighbourhood will also ensure a rich variety of architectural styles, with attention to detail – building massing, promotion, façade articulation and materials.

The diverse needs of people of different incomes and lifestyles, at various stages in the life cycle, will be met. An emphasis will be placed on human scale design, such that residents will positively perceive and comfortably relate to the built and natural environment.

Each precinct contains several neighbourhoods with a centralized park. Each neighbourhood is generally defined by the collector roads with a centralized neighbourhood park approximately within a 5 minutes walking distance, as illustrated in **Figure 11**.

Streets and Blocks

The street network is developed based on a modified grid road pattern which provides maximum permeability in support of the transit service, walking and cycling, and which places emphasis on the movement of automobile and pedestrian/cyclists.

Natural and Physical Features

Design of the concept plan is intended to be sensitive and have regard to the existing natural features such as Ottawa River, Cardinal Creek, and woodlots etc., and the existing physical attribute.

Parks, Open Space and Linkages

The concept plan is envisaged to have a well-integrated green space system (parks, open spaces, walkways and pathways) which could be woven into the existing trail network as well as the proposed on road bicycle facilities. This well connected greenspace linkage system is to be designed for people and cyclists to promote healthy living. Some parts of this linkage system could be potentially developed as year round recreational trail system. **Figure 3** illustrates the resultant integrated greenspace network.

Gateways

The gateways within the Cardinal Creek Village Community provide a sense of identity and promote the image of the community, as well as create a focal point into the individual neighbourhoods.



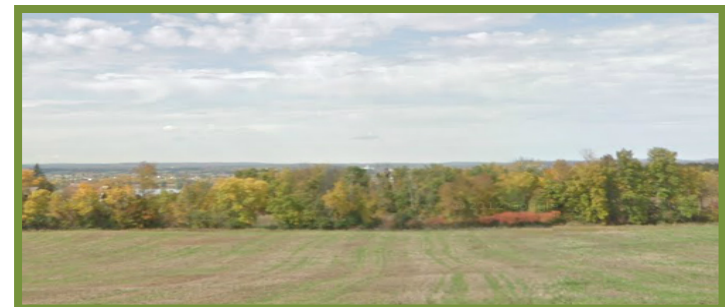
Two types of the gateways can be identified in Cardinal Creek Village Community – a ‘Community Gateway’ and a ‘Neighbourhood

Gateway’. Refer to **Figure 4**. A ‘Community Gateway’ is where an arterial road meets a major collector road, while a ‘Neighbourhood Gateway’ is defined as where an arterial road/major collector road intersects with a minor collector road.

The gateway features should include a combination of street oriented and well-articulated architectural design and built form with a high quality landscape design. The commercial and residential buildings located near the gateways play an important role in promoting the character and quality of the community. Distinguishing architectural elements such as tower features, turrets, projecting bay windows, gables and details should be incorporated into the building where appropriate. Gateway features shall have regard to the City’s Design Guidelines for Gateway Features.

Views and Vistas

The Cardinal Creek Village Community is designed to maintain and



enhance the prominent views of the Community. The topographic character of the Community provides the opportunity for striking views across the Cardinal Creek Village Community and of the Ottawa River and Gatineau hills. Key elements of the Cardinal Creek Village Community, such as the ‘*Central Park*’ and the local street network are designed to enhance and protect the prominent views of the Community.

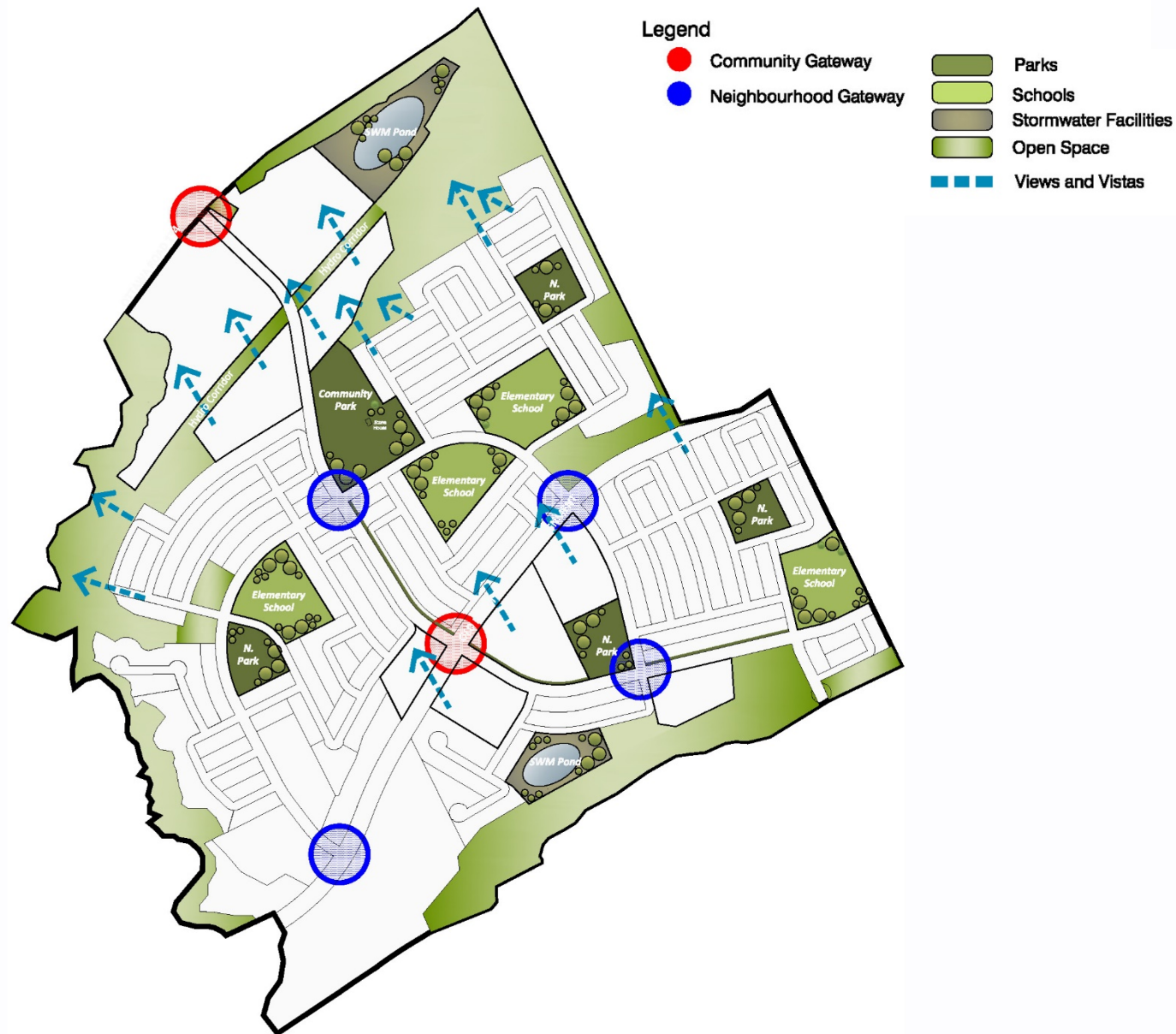


Figure 4 - Gateway and Views Plan

4.3 COMMUNITY STREETScape GUIDELINES

Community Edges

Development Adjacent to Ottawa Road 174, Old Montreal Road and Major Collector Roads

Community edges along Ottawa Road 174, Old Montreal Road and the major collector roads provide a first impression of the Cardinal Creek Village. The community edges should be designed and treated to reinforce the overall character and identity of the community. The Cardinal Creek Village has a variety of community edges including window streets (service roads), open space, and limited reverse lot frontages.

Guidelines:

- Along major collector roads, residential dwellings should face the street, and window streets (service roads) or laneways should be used, as appropriate.
- Window streets should be designed with a landscape edge with low fencing and soft landscaping along the major collector roads.
- Where appropriate, landscaped pedestrian access points should be provided to the neighbourhood from the major collector roads.
- Where possible, reverse lot frontages should be avoided on collector roads.
- Buildings backing onto the community edges should be designed to provide a strong edge condition and reinforce the image of the community. A landscape edge should also be provided. The use of acoustic/privacy fencing should be avoided except where no other design options are available..
- For reverse lot frontage lots, the design of a through lot concept with frontage facing the street should be considered.

Road Network

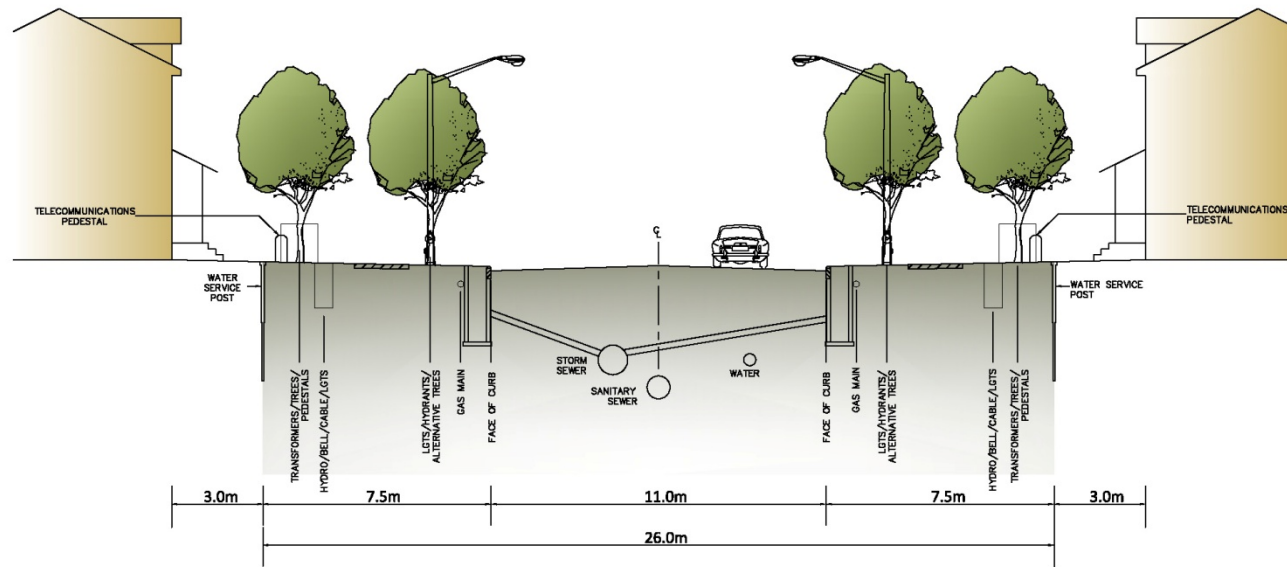
The design of the major and minor collector roads will be consistent with the City of Ottawa Road Corridor Planning and Design Guidelines.

Street names, which may differ from the City's typical protocol, will be permitted in the Cardinal Creek Village Community, provided that no constraints to street identifications for emergency services will result. This will allow for the consideration of street names and suffixes that reflect the local cultural, heritage and geographic qualities of the Cardinal Creek community and assist in the identification of Cardinal Creek Village as a unique community based on a local village character

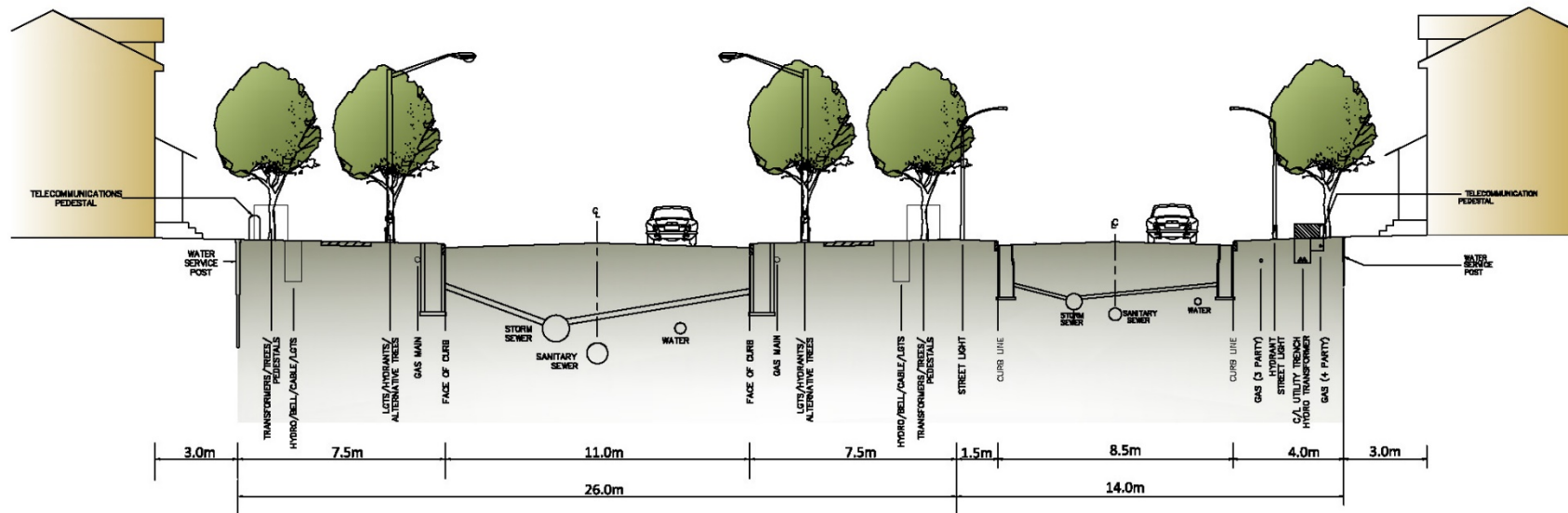
Collector Roads

Guidelines:

- Major collector roads accommodating transit routes should be designed within a 26.0m right-of-way (refer to **Figure 5**).
- Where the major collector road intersects with Ottawa Road 174, the right-of-way should be 31.0m (refer to **Figure 6**).
- Minor collector roads should be designed within a 24.0m right-of-way (refer to **Figure 7**).
- The underground services and utilities within the rights-of-way identified in **Figures 5, 6 and 7** may be refined during the detailed subdivision design.
- Continuous sidewalks with connections to open space and pedestrian pathways should be provided.
- Collector road rights-of-way should include a paved road surface with one driving lane in each direction, and a boulevard and sidewalk on both sides of the road.
- A tree-lined 'Greenway' should be incorporated on one side of the major collector roads to provide direct and continuous pedestrian walkway, linking recreational amenities, commercial areas, and multi-use pathways.
- Trees and other plant materials, lights, directional signage, and street furniture should be provided within the 'Greenway'.
- On-street parking can occur on both sides of the street on major collector roads, but is generally confined to one side of the street on minor collector roads.
- On-street cycling is strongly encouraged, and should be defined within the street right-of-way.



Typical 26.0m Cross Section



26.0m Cross Section with Window Street

Figure 5 - Major Collector Road Cross Section (26.0m)

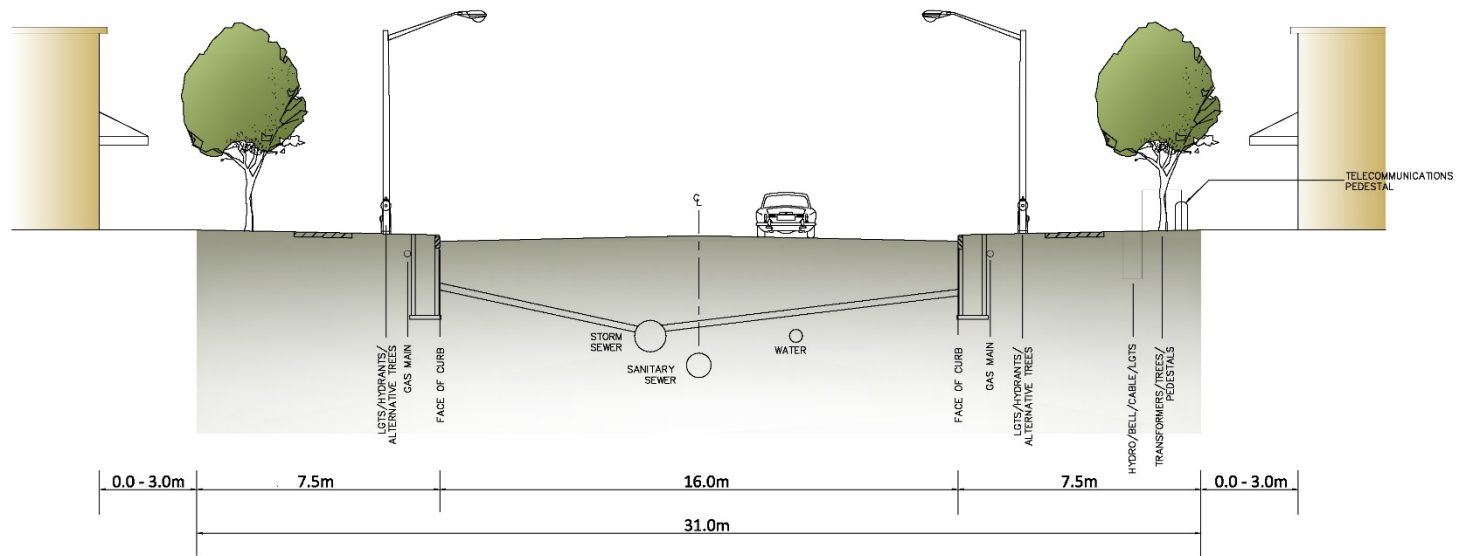


Figure 6 - Major Collector Road Cross Section (31.0m at Ottawa Road 174)

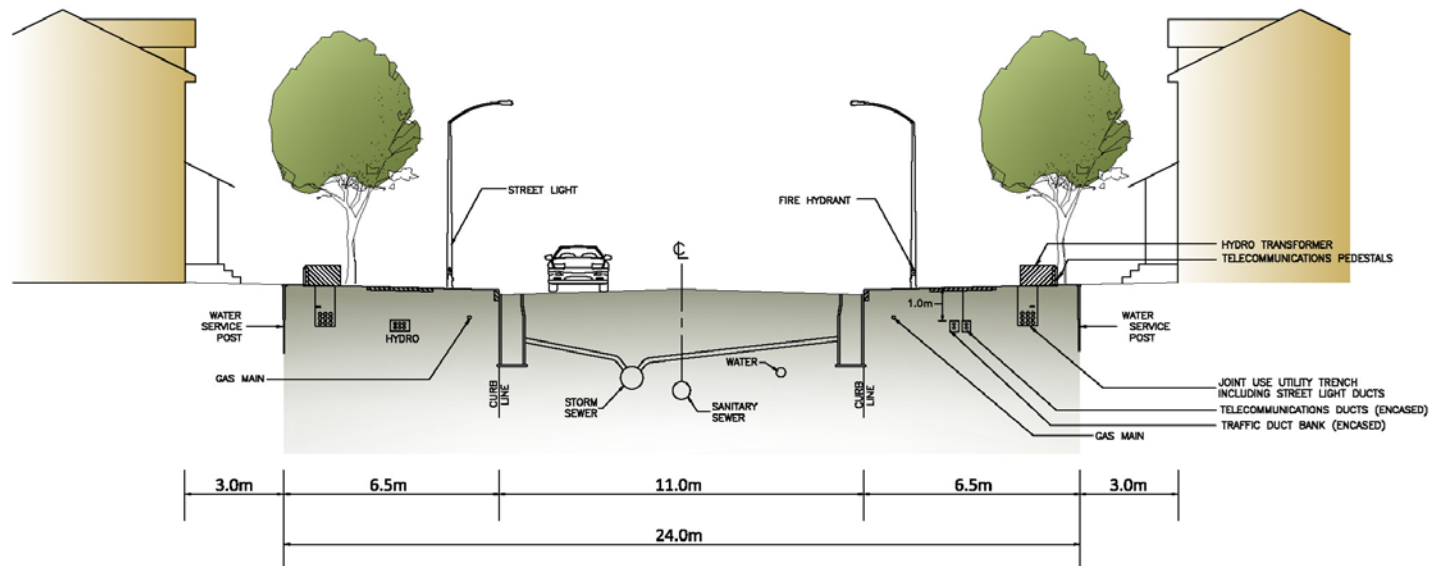


Figure 7 - Minor Collector Road Cross Section (24.0m)

- Coordinate the location of trees, street fixtures, telecommunications equipment, utility and light poles, and signs.
- A row of trees should be planted in the boulevard on both sides of the street with regular spacing between trees (in accordance with City of Ottawa standards).
- As a traffic calming measure, traffic circles are encouraged at key intersections of collector roads.
- Landscape features and planting, in accordance with City of Ottawa standards, should be integrated into the traffic circle, and require minimal maintenance by the City.
- Bus stops and waiting amenities (such as concrete waiting areas, shelters and/or benches), should be provided at designated intersection, or as needed.
- Traffic circles located near recreation facilities, elementary and secondary schools should be reviewed for safety issues, in consultation with the relevant School Board(s).
- Community mailboxes, newspaper boxes and bus shelters, seating, waste receptacles, and mailboxes should be located together.

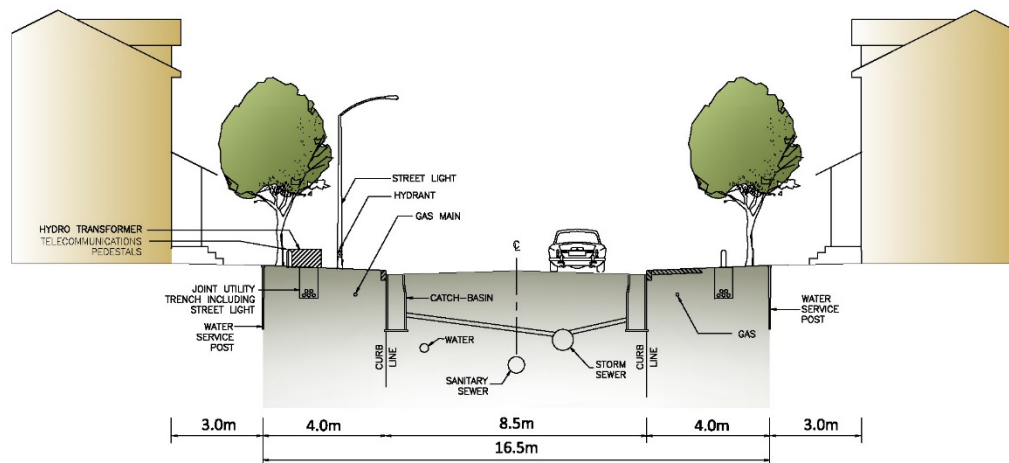


Figure 8 - Local Road Cross Section (16.5m)

Local Roads

Guidelines:

- Local roads may be designed within a minimum 16.5m right-of-way, and shall include a paved road surface with one driving lane in each direction, a boulevard on both sides of the street, a sidewalk on one side of the road (refer to **Figure 8**) and street tree planting. Local soil conditions may require a larger road right-of-way.
- Single-loaded roads (service roads) may be designed within a minimum 14.0m right-of-way (refer to **Figure 9**). Local soil conditions may require a larger road right-of-way.
- The underground services and utilities within the rights-of-way identified in **Figures 8 and 9** may be refined during the detailed subdivision design.
- On-street parking is permitted on both sides of the road.
- Continuous sidewalks with connections to open space and pedestrian pathways, and on-street cycling should be provided.
- Coordinate the location of trees, street fixtures, telecommunications equipment, utility and light poles, and signs.

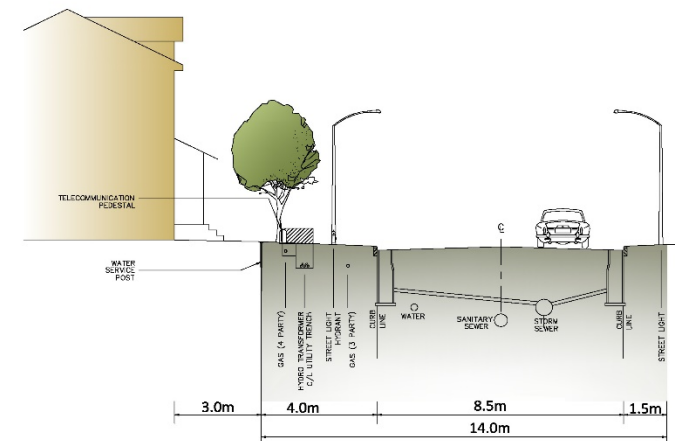


Figure 9 - Single Loaded Road Cross Section (14.0m)

- A row of trees shall be planted on each side of the street with regular spacing between trees (in accordance with City of Ottawa standards).
- The use of window streets and traffic circles on local roads shall consider the location of potential bus stops.

Street Trees

Guidelines:

- The number, type and location of street trees shall be planted with any road right-of-way shall be in conformity with the City's standard. The planting of trees and the installation of distribution poles along public roadways will require planning and coordination with the utilities.

4.4 PARKS AND OPEN SPACE

The parks and open space system of the Cardinal Creek Village is comprised of a number of elements, including the Cardinal Creek and related watercourses, woodlots, two types of public parks, stormwater management ponds, hydro transmission corridors, and linkages and pathways.

Community Park

The community park will incorporate a variety of active recreational opportunities such as sports fields, tennis courts, splash pads, children's play areas,

pedestrian walkways, and seating areas or other facilities determined by the City of Ottawa. Visual amenities such as gardens and pergolas/gazebos should also be provided at pedestrian nodes or gathering areas. Community mailboxes may also be integrated within the pergolas/gazebos, in accordance with City of Ottawa and Canada Post standards.

Guidelines:

- The size of a community park is to be no less than 3.25ha (8.0 Acres).
- Views of the Cardinal Creek Village Community and of the Ottawa River and Gatineau hills should be optimized and enhanced whenever possible.
- The existing stone house located within the community park provides an opportunity for adaptive re-use in conjunction with the overall park design and programming.
- Pedestrian connections should be provided to the nearby sidewalks and other pedestrian walkways.
- The community park should be exposed to collector and local streets to provide good visibility and accessibility.
- Crime Prevention Through Environmental Design (CPTED) should be considered in the design of the park.
- The community park should not be located adjacent to school properties, but may be associated with other facilities such as community buildings, open space areas and stormwater management ponds.



- The community park will not be used as part of, or associated with the function of the stormwater management system.
- Surface parking areas within the community park should be enhanced through landscaping around the edge of the parking areas.
- Lighting should be directed away from residential areas.

Neighbourhood Parks

As a focal point of each neighbourhood, neighbourhood parks will provide a local gathering and recreational space for nearby residents. They are generally located in the centre of each neighbourhood within approximately a 5 minute walking distance for most residents. Each neighbourhood is generally bounded by collector roads, which provides park users with additional safety by not having to cross major roadways to access the park. Each neighbourhood park shall incorporate a variety of active recreational opportunities such as children's play areas, outdoor rinks, splash pads, pedestrian walkways, and seating areas or other facilities determined by the City of Ottawa.

Guidelines:

- The size of a neighbourhood park is to be no less than 1.2ha (3.0 Acres).
- Pedestrian connections should be provided to sidewalks and other pedestrian walkways.
- Neighbourhood parks should be exposed to local streets to provide good visibility and accessibility.
- Crime Prevention Through Environmental Design (CPTED) should be considered in the design of the park.
- Neighbourhood parks should not be located adjacent to school properties, but may be associated with other facilities such as community buildings, open space areas and stormwater management ponds.
- Neighbourhood parks will not be used as part of, or associated with the function of the stormwater management system.

- Parking areas are not required within a neighbourhood park.

Natural Features and Open Space

Guidelines:

- The existing natural features should be maintained by preserving the existing vegetation and topographical features.
- Views to the Ottawa River and natural features should be provided, where possible.
- Where possible, preserve and enhance natural features such as the watercourses, and woodlots throughout the development.
- Streetscapes should have open, accessible frontages along greenspaces, such as woodlots and stormwater management ponds, wherever possible.
- Fencing should be provided along greenspaces only to prevent direct access to sensitive environmental areas or unsafe conditions
- Pedestrian walkways from sidewalks/roads through the open spaces should be provided, where possible.



Stormwater Management Ponds and Drainage Corridors

Guidelines:

- The design of the ponds and corridors should be naturalized (slopes, contours).
- Where a pond fronts onto a street, the facility should be designed with a landscaped treatment along the street edge that is compatible with the street landscaping.
- Ponds should be designed with native plant materials, where possible.
- Pedestrian walkways and recreational pathways should be provided around the stormwater management ponds and along the drainage corridors, and where possible, be integrated into the community trail network. Pedestrian walkways around ponds and corridors should double as access roads, where necessary.

Linkages and Pathways

The multi-use and/or pedestrian pathways and bicycle facilities are the fundamental thrusts of the Cardinal Creek Village. The pathways and facilities are the connectors to link residential neighbourhoods, schools, parks, open space and natural features, and provide a linkage to the pathways established by the City of Ottawa Official Plan.

Guidelines:

- Pedestrian and multi-use pathways and bicycle facilities should be provided within the Cardinal Creek Village and linked to the City-wide trail network.
- Pathways should be included mid-block along long residential streets to provide convenient pedestrian access.
- Where possible, pedestrian pathways should be provided from residential neighbourhoods to adjacent uses such as a commercial and institutional uses.
- Pedestrian pathways and bicycle facilities should be accessible to a range of users.

- Amenities, such as seating, lighting, signage, and garbage and recycling containers should be provided along the trails.
- Design pathways to reduce the negative impacts on open space and natural features and habitats.
- Bicycle routes should be permitted within the street right-of-way.
- All pathways and cycling facilities should be clearly signed/identified, and any street crossings should be marked.
- Where possible, connections should be provided between residential neighbourhoods.
- Where practical, some selected trails could be developed to accommodate year-round uses.

Hydro Corridor

Guidelines:

- Pedestrian walkways and recreational pathways are encouraged within the corridor, subject to arrangements with Ottawa Hydro and/or Hydro One, and shall be integrated into the community trail network.
- Pedestrian and multi-use pathways shall be carefully located to avoid the potential for adverse impacts on existing natural features and habitats within the corridor.

4.5 SITE DESIGN AND BUILT FORM GUIDELINES

Development within the Arterial Mainstreet areas of Cardinal Creek Village will be subject to the City's 'Urban Design Guidelines for Development along Arterial Mainstreets' (2006) and the following. Where there is a conflict between the two documents, the guidelines of Section 4.5 shall prevail.

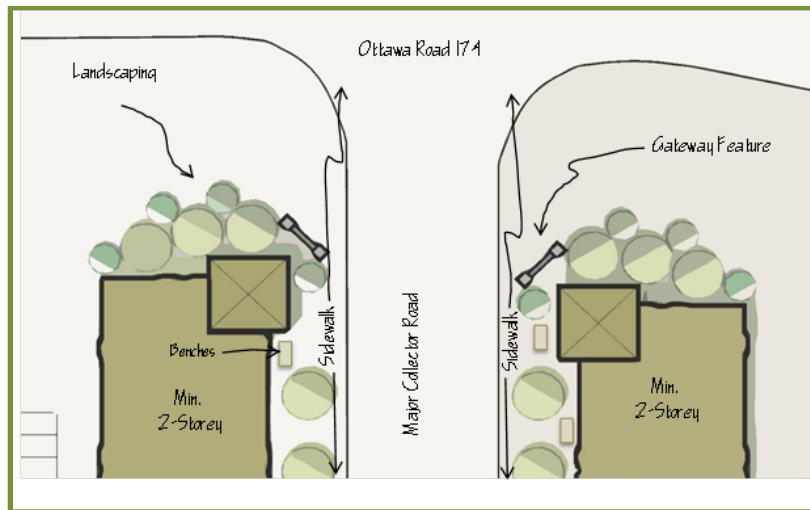
Development within these areas will be subject to review by the City of Ottawa Urban Design Review Panel.

Arterial Mainstreet 'A'

Development Adjacent to Ottawa Road 174 and the Major Collector Road

Guidelines:

- Commercial buildings should be sited and designed to support and reflect the overall residential image and character of the Cardinal Creek Village.
- Buildings are encouraged to locate close to Ottawa Road 174, to provide a pleasant streetscape to this main transportation artery; to reduce the visual impact of expansive parking lots; and, to promote pedestrian activity.



- Pedestrian connections should be provided at the major collector road to provide connections the Ottawa River
- Blank or single material walls visible from the major collector road shall not be permitted. The facades of the buildings adjacent to the major collector road will have windows and/or glazing that overlook street, in order to maintain the character of a safe and pedestrian friendly community. Where long facades occur, the use of additional architectural details and building materials may

be incorporated to enhance the visual appearance of the elevation.

- Building setbacks along Ottawa Road 174 shall take into account the topographic conditions and natural features in this area in order to promote this road's ability to contribute to a scenic route along the Ottawa River.
- Buildings situated at prominent locations, particularly near the intersection of Ottawa Road 174 and the major collector road, should incorporate special architectural treatments (such as parapets, dormers, decorative masts with banners, etc.).
- A minimum visual building height of two storeys should be provided. The height of the building shall generally be no greater



than four storeys.

- Building entrances should be clearly defined and visible through the use of entrance canopies, awnings, and other architectural elements. Where appropriate, building entrances and should be oriented towards the major collector road and main driveways.
- Canopies should be encouraged to provide colour and interest to streetscapes, as well as weather protection for pedestrians and

for merchants' goods. Awnings also reinforce the identity of individual retail and service outlets located within the Community Core.

- Signage should be integrated with the commercial site with appropriate landscaping and coordinated with the adjacent buildings (architectural details, colours, materials, etc.)



- Built form, height, materials and colours for buildings should be coordinated to complement adjacent buildings.
- Special attention shall be given to building elevations which face Ottawa Road 174 in order to avoid blank walls in this location and walls should be articulated through various treatments such as arcades, colonnades, and the use of a variety of different façade materials.
- A consistent streetscape should be maintained along the major collector road and main driveways.
- Site furnishings, such as benches, garbage receptacles, bike racks should be provided near building entrances and amenity areas.
- Parallel parking should be provided in front of the buildings along the main driveways, where appropriate.

- Landscaped open space and amenity areas such as entrance plazas, forecourts and outdoor cafes are encouraged in front of the buildings facing the major collector road and main driveways.
- Pedestrian and vehicle access and circulation within the blocks



should provide safe and well-defined routes.

- Surface parking areas should be located at the rear or side of the buildings, and should be well lit to ensure public safety.
- Parking areas located at the side of a building should be no closer to the street than the front of the building.
- Where possible, the integration of small, interconnected parking areas should be encouraged.
- Utilities, such as transformers and switching mechanisms, should be enclosed within the building, wherever possible. Where the placement of utilities within the building is not feasible, utility placement will be screened from public view through landscaping and/or other screening mechanisms.
- Loading, garbage facilities and other service functions should be screened from the major collector road and from public view. Location of these facilities within or at the rear of buildings is encouraged.

- Surface parking areas should be visually softened by introducing trees, planters, high-quality, low fencing, and clearly defined pedestrian routes.



Arterial Mainstreet 'B'

Development Adjacent to Old Montreal Road and the Major Collector Road

Guidelines:

- Commercial buildings should be sited and designed to support and reflect the overall residential image and character of the Cardinal Creek Village.
- Buildings are encouraged to locate at the street edge, where possible, to provide a pleasant streetscape; to further reduce the visual impact of expansive parking lots; and, to promote pedestrian activity. A consistent streetscape should be maintained along the major collector roads.
- Blank or single material walls visible from the major collector road should not be permitted. The facades of the buildings adjacent to the major collector road will have windows and/or glazing that overlook street, in order to maintain the character of a safe and pedestrian friendly community. Where long facades occur, the use of additional architectural details and building materials may

be incorporated to enhance the visual appearance of the elevation.

- Buildings situated at prominent locations, particularly near the intersection of Old Montreal Road and the major collector roads, should incorporate special architectural treatments (such as parapets, dormers, clock tower, decorative masts with banners, etc.).



- Building entrances should be clearly defined and visible from the street through the use of entrance canopies, awnings, and other architectural elements, and should be oriented towards the major collector road and main driveways.
- Built form, height, materials and colours for buildings should be coordinated to complement adjacent buildings.
- Canopies should be encouraged to provide colour and interest to streetscapes, as well as weather protection for pedestrians and for merchants' goods. Awnings also reinforce the identity of individual retail and service outlets located within the Community Core.

- Signage should be integrated with the commercial site with appropriate landscaping and coordinated with the adjacent buildings (architectural details, colours, materials, etc.)
- In order to establish a traditional main street character within the new development areas along Old Montreal Road, streetscape designs shall incorporate the following:
 - An interesting and inviting pedestrian environment;
 - Parallel on-street parking to help buffer pedestrians from passing vehicles resulting in a greater feeling of safety;
 - Interesting signage;
 - Outdoor spaces for seating; and,
 - Incorporate street trees to separate cars from people
- Landscaped open space and amenity areas such as entrance plazas, forecourts and outdoor cafes are encouraged in front of the buildings facing Old Montreal Road and the major collector road.
- Site furnishings, such as benches, garbage receptacles, bike racks should be provided near building entrances and amenity areas.
- Pedestrian and vehicle access and circulation within the mixed use blocks should provide safe and well-defined routes.
- Surface parking areas should be located at the rear or side of the buildings, and should be well lit to ensure public safety.
- Parking areas located at the side of a building should be no closer to the street than the front of the building.
- Surface parking areas should be visually softened by introducing trees, planters, high-quality, low fencing, and clearly defined pedestrian routes.
- Where possible, the integration of small, interconnected parking areas should be encouraged.
- Utilities, such as transformers and switching mechanisms, should be enclosed within the building, wherever possible. Where the placement of utilities within the building is not feasible, utility placement will be screened from public view through landscaping and/or other screening mechanisms.
- Loading, garbage facilities and other service functions should be screened from the major collector road and from public view.

Location of these facilities within or at the rear of buildings is encouraged.

General Guidelines for Mixed Use Areas

Guidelines:

- Buildings which are located at the street edge and provide a continuous street frontage are strongly encouraged.
- Pedestrian and vehicle access and circulation within, an individual site should provide safe and well-defined routes.
- Entrances should be clearly defined and visible from the street.
- Ground floor spaces facing the street should have windows and door which face directly onto the street.
- The scale of mixed use buildings should relate and be compatible to adjacent development.
- Surface parking areas should be located at the side or rear of the buildings, where possible.
- Surface parking area should be well lit to ensure public safety.
- Lighting for commercial buildings and parking areas should be directed away from adjacent properties.
- Where a section of the parking area is located adjacent to the street, the street edge of the commercial site should be designed with a landscape treatment to provide visual screening of the parking area from the street.
- Loading, garbage facilities and other service functions should be screened from the street and from public view. Location of these facilities within or at the rear of buildings is encouraged.
- Where possible, utility elements and equipment should be located away from publicly exposed views, and are discouraged from being located in the front yard or flankage yard of a corner lot. Where utilities are required to be located in the front or flankage yards, the utilities should be located in a discreet area or screened from public view through landscaping or other screening mechanisms. Incorporate a pedestrian connection to pathways located within the hydro corridor.

General Guidelines for Residential Dwellings

Guidelines:

- A variety of housing types and designs within each neighbourhood should be provided to enhance the streetscape.
- Residential dwellings should be located close to the street to reinforce a strong street edge.
- Provide a variation in the siting of residential dwellings within the streetscape to avoid the impacts of long, straight streets.
- Rear and flankage elevations of corner lots should be consistent in the quality and detail of the front elevation.
- The architectural character of all dwellings should have a consistent architectural style.
- Create gateway buildings (residential dwellings) and special entry landscape features at the entrance into each neighbourhood, where appropriate. Strong visual interest (dormers, entries, wrap-around porches and windows) should be provided on the elevations of these buildings. Landscape treatments, walls/fencing, and entry features may be incorporated and coordinated with the architectural design of the gateway building.



- Driveways should be paired, where possible, to minimize the presence of garages on the streetscape, and provide for ample space for trees within the boulevard.

- Residential dwellings located on window streets should face the street, where possible, and incorporate a high quality of architectural design and detail. Projecting garages should be minimized.
- Residential dwellings located on elbowed, 'T'-intersections, and cul-de-sac streets should be sited to minimize the visual impact of the garage and increase the opportunity for special landscaping



treatments. Architectural elements (such as porches, turret/bay windows) are encouraged to provide visual interest.

- Where possible, utility elements and equipment should be located away from publicly exposed views, and are discouraged from being located in the front yard or flankage yard. Where utilities are required to be located in the front or flankage yards, the utilities should be located in a discreet area or screened from public view through landscaping or other screening mechanisms.

- The architectural style of the townhouse dwellings should be consistent with the character of adjacent single and semi-detached residential dwellings.
- Avoid the dominance of the garage throughout the Community by controlling the projection of a garage in front of the main residential building wall or providing vehicular access from a laneway. Projecting garages on narrow lots may be considered, subject to the approval of the City.
- Residential dwellings that face or flank a park or school should incorporate a high quality of architectural interest.
- Front entrances should face and be visible from the street.

Guidelines for Apartment Buildings

Guidelines:

- All residential apartments should be located close to a public street with a principal façade and entry facing a street or public open space. For building's interior to the site, the main entrance should be oriented toward the interior driveway and where applicable, the amenity area.



- Parking should not be permitted between the street and the principal façade of the building.
- Architectural design on all elevations should be consistent.
- Parking areas should be screened from the public street through landscaping.
- Service areas should be located at the rear of the building and screened from public view.
- Where possible, utility elements and equipment should be located away from publicly exposed views, and are discouraged from being located in the front yard or flankage yard of a corner lot. Where utilities are required to be located in the front or flankage yards, the utilities should be located in a discreet area or screened from public view through landscaping or other screening mechanisms.

Schools

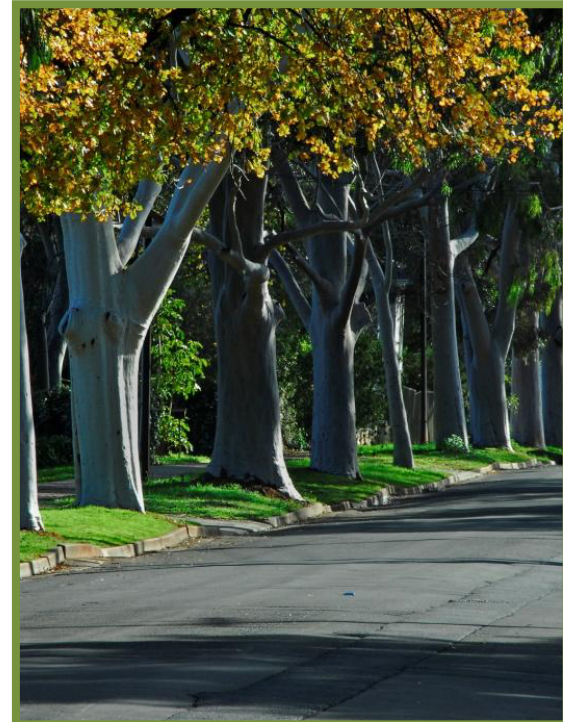
Guidelines:

- School buildings should be located close to the public street with main entrances visible from the street.
- Where practical, gathering or plaza areas should be included in front of the main entrance of the school.
- Parking areas are discouraged from being located in front of the school building.
- School elevations should be designed with a high level of architectural character and materials.
- Bus drop-off areas should be located away from the main entrance of the school, preferably at the side of the building to avoid conflict with other vehicles.
- Bus drop-off areas for elementary school may also be located on local streets, subject to City of Ottawa approval.
- Pedestrian connections should be provided from sidewalks, parking areas, and bus loading areas to school buildings.
- Lighting for school buildings and parking areas should be directed away from adjacent properties.
- Service areas should be screened from public view.
- Signage should be integrated into the landscape treatments or building architecture.

- Where possible, utility elements and equipment should be located away from publicly exposed views, and are discouraged from being located in the front yard or flankage yard of a corner lot. Where utilities are required to be located in the front or flankage yards, the utilities should be located in a discreet area or screened from public view through landscaping or other screening mechanisms.

Street Tree Planting

Street tree planting shall be required in all residential and commercial areas for visual appeal and environmental benefits, including reduction of radiant and reflective heat; provision of shade; benefits to wildlife, as well as providing an enhanced physical environment for residents.



5. Infrastructure

Development within the Cardinal Creek Village Community will be supported by a full range of urban infrastructure including roads, transit, water and sanitary sewer services and stormwater management facilities.

5.1 ROADS

The planning, design, phasing and land requirements for roads will be based on the Land Use Plan and comprises a network of Arterial Road (Ottawa Road 174 and Old Montreal Road), major and minor collector roads, and local roads. The location of collector roads within the Cardinal Creek Village Community is reflective of the site's topographic and natural heritage features.

Only the arterial and collector road network is identified on the Land Use Plan. The remainder of the local road network, which is not shown on **Figure 2**, shall recognize natural and built constraints and shall generally form a continuous and interconnected modified grid pattern, where possible.

Turning circles, roundabouts, hammerheads or other similar roadway features may be permitted on local and collector roads subject to evaluation by the City of functional, operational and financial issues associated with their use.

The north-south major collector road will be subject to a special design standard which allows the construction of a pathway along one side of the right-of-way which will incorporate a double row of trees.

Streetscape design for arterial and collector roads shall be subject to the urban design policies of this Plan and the urban design guidelines found in Section 4.0.

5.2 ACTIVE TRANSPORTATION

The greenspace system shall include safe, convenient and attractive facilities for pedestrians and cyclists to facilitate active transportation opportunities within and through the Cardinal Creek Village Community.

In addition, on-street and off-street pathways and sidewalks will provide connectivity within the community and to adjacent areas.

A major multi-use pathway shall be incorporated into the north-south major collector road right-of-way which is intended to provide a wider pathway framed by a double row of street trees along one side of the right-of-way. The City of Ottawa will consider an alternative road cross-section design in order to accommodate this pathway.

5.3 TRANSIT

Local transit services will be provided in accordance with growth in the Concept Planning area. Local transit services should generally be provided on the basis of a maximum walking distance of approximately 400 metres. Pedestrian pathways through residential areas shall be provided to ensure accessibility to transit routes.

It is anticipated that local transit service will provide feeder service operations to the Rapid Transit Stations at Trim Road.

A Rapid Transit Corridor may be extended in the long term to the Concept Planning area and in this regard, two potential corridor options, as well as the City of Ottawa's current preferred transit alignment are shown on the Land Use Plan. The actual location of the Rapid Transit Corridor will be subject to further detailed planning to be undertaken by the City and may require a modification to this plan.

5.4 SERVICING INFRASTRUCTURE

The provision of servicing infrastructure will be consistent with the following:

- Logical and orderly extensions of existing infrastructure;
- Maximization of existing servicing infrastructure capacities;
- Minimization of future infrastructure costs; and,
- Application of a flexible approach to the development of servicing infrastructure.

Sanitary sewer service will be provided through extensions of the existing municipal systems. The Master Servicing study concludes that sufficient sanitary capacity is available in the municipal system.

Water supply will be provided through extensions of the existing municipal systems. The Master Servicing study concludes that sufficient capacity is available in the municipal water supply network.

Development within the Cardinal Creek Village Community will be serviced by the stormwater management facilities shown conceptually on **Figure 3**. Stormwater will be collected by storm sewers with outfalls in these ponds. Treatment of stormwater within these ponds will be based on the best management practices prevailing at the time of construction.

5.5 UTILITIES

Utilities will be expanded in conjunction with planned growth through coordination with the various utility providers.

Future telecommunications facilities installed in the area should be based on the latest available technology and have the ability to be easily expanded and upgraded.

6. Implementation and Interpretation

It is intended that development will proceed in a manner generally consistent with the Cardinal Creek Village Community Concept Plan. In this regard, minor changes to the Land Use Plan may be accommodated through the development approvals process at the discretion of the General Manager of Planning and Growth Management Branch.

This Concept Plan is intended as a guide to the development of the Amendment Area. Some flexibility in interpretation is permitted, provided the general intent of the policies and principles of this Plan are maintained

The land uses identified on **Figure 2** are intended to show general areas and the boundaries are flexible and may vary without amendment to the Plan, except where categories are established by fixed boundaries such as river valleys and roads.

The Concept Plan will guide the form and character of Cardinal Creek Village. The Plan will guide the zoning, subdivision and site plan control processes, as well as capital expenditures in this area. While the end product may differ in detail from the various plans contained within this Concept Plan document, it is intended that development will have a framework consistent with the policies and guidelines that are described in this Concept Plan.

The change process distinguishes between minor and major changes. A substantive design change would require approval by Planning Committee and external agencies as necessary and may necessitate the completion of an amendment to the Master Plan/EA. A minor change would not. Minor changes

may be made at the discretion of the General Manager, Planning and Growth Management and incorporated into subdivision and/or site plan approvals.

Minor Changes

Minor design changes may be defined as those which do not appreciably change the expected net impacts or outcomes associated with the project. For example, median width, pathway connections, and underground infrastructure sizes, adjustments to the distribution of low and medium density residential areas, minor changes to the location and configuration of community or neighbourhood parks, minor changes to the residential mix, minimal adjustments to stormwater management pond block size and location would be considered minor. Slight changes in alignment or facility footprints, which have the agreement of all affected landowners, would also be considered as minor. All affected landowners and appropriate stakeholders will be provided details of the modification. The majority of such changes could likely be dealt with during the detailed design phase and would remain the responsibility of the proponent to ensure that all relevant issues are taken into account.

Major Changes

Major changes may be defined as those which change the intent of the EAs or appreciably change the expected net impacts or outcomes associated with the project. An example of a major change would result from a proposed shift in a preferred design alignment or configuration which would warrant changes in mitigation changes to the number of storm ponds, the relocation of school and community park sites, or a major change to the Cardinal Creek and related

tributaries. If the proposed modification is major the recommendations and conclusions associated with the change would require updating. An addendum to the Master Plans may be required to document the change, identify the associated impacts and mitigation measures and allow related concerns to be addressed and reviewed by the appropriate stakeholders. Major changes will be subject to approval by Planning Committee and external agencies as required.

To initiate the review and approval of substantive changes, the proponent shall prepare and submit to the City a composite plan comprised of the proposed change(s) and including subdivision and site plan (s) within the neighbourhood (or the broader community if affected) that are approved or about to be approved. Where the proposed change affects land not subject to an approved or about to be approved plan, the composite plan shall also include the design as shown on the Land Use Plan of the surrounding neighbourhood, or broader community as may be required.

The City will circulate copies of the composite plan as may be required to owners of development and redevelopment land directly affected by the proposed change(s) for comment. Disagreements will result in referral of the subdivision and/or site plan(s) to the Planning Committee for approval. Where a proposed change affects the broader community, a public open house to present the proposed changes to the Concept Plan and to receive input may also be required.

Each successive change to the Land Use Plan must reflect prior revisions as approved through the composite plan/subdivision approval process. The City will keep all approved changes on file.

Staff initiated changes to the Land Use Plan and to the text of the Concept Plan may be made at the discretion and approval of the General Manager of Planning and Growth Management Branch and shall involve notice to owners of affected development and redevelopment parcels as may be required. Where changes are

substantive or there is disagreement between staff and the landowners affected by such proposed changes, approval by the Planning Committee may be sought.

Landowners are not required to develop their lands precisely as shown on the Detailed Concept Plan found in **Appendix 'A'**. The purpose and role of the Detailed Concept Plan is to:

- Provide guidance on how these lands *could* develop over time;
- Demonstrate possibilities and methods for addressing specific development challenges;
- Illustrate ways to achieve the design guidelines for various land uses;
- Illustrate some specific objectives the Concept Plan is seeking to achieve; and
- Provide a means for establishing and monitoring density targets over time.

Where lists of examples of permitted uses are provided in Section 3.0 of this Concept Plan, they are intended to illustrate the possible range and type of uses that are to be considered. Specific uses that are not listed, but considered by the City to be similar to the listed uses and to conform to the general intent of the applicable land use category may be recognized as a permitted use in the implementing zoning by-law.

6.1 DEVELOPMENT APPROVALS

Development approvals for lands within the Cardinal Creek Village Community Concept Plan will initially proceed by Plan of Subdivision in order to secure the necessary road network, servicing infrastructure and parkland dedication. Development applications shall include all information required under Section 5.2 of the Official Plan. In addition, all development applications shall include a description and/or illustration as to how the development proposal meets the intent of the Cardinal Creek Village Community Concept Plan and related design guidelines. All residential development

applications shall also address how the proposed residential uses and density contribute to the projected housing mix and residential development densities established in the Cardinal Creek Village Concept Plan and the Official Plan of the City of Ottawa.

Council will enact a zoning by-law(s) to permit the development established by the Land Use Plan in conjunction with approval of a plan of subdivision and/or site plan. The City may also use holding zones to specify the future uses of lands that, at the present time, are considered premature for development due to inadequate road, servicing or community facilities infrastructure being available within a reasonable period.

Site plan approvals will also be required (except for low density residential land uses).

School sites shall be zoned for both institutional and residential use in order that, in the event that no School Board acquires a school site established in a Plan of Subdivision, the lands shall be developed for residential land uses. The type and range of such residential uses shall be in accordance with the Residential Area land use category as described in Section 3.4.

In accordance with Section 3.6, prior to the submission of a zoning by-law amendment and site plan applications for the Arterial Mainstreet 'A' lands, a demonstration plan and related design guidelines shall be provided. The demonstration plan and guidelines shall be approved by Planning Committee and appended to this Concept Plan.

Finally, the City may require development agreements as a condition of the approval of development applications, in order to ensure that the necessary approvals for, and contributions of lands, funds and/or commitments for services will be in place. Such development agreements may address:

- Parks, open space and natural heritage features;

- Water, wastewater collection and stormwater management facilities;
- Transit;
- Road infrastructure (including widening of existing roads); and,
- Telecommunications and other utilities.

6.2 DEVELOPMENT AGREEMENTS

As development proceeds within the Cardinal Creek Village Community Concept Plan, innovative implementation strategies will be explored in order to ensure the timely advancement of municipal infrastructure and community amenities and facilities. There shall be a front-ending agreement(s) (in which the City would participate) established within the Cardinal Creek Village Community to require, through development approvals, financial contributions for key infrastructure requirements and to allow the developer(s) to advance the construction of certain facilities in accordance with agreed-upon financial principles.

There shall also be a master parkland agreement established within the Cardinal Creek Village Community to create a mechanism which allows for compensation of parkland dedication that may be inequitably distributed across the Cardinal Creek Village Concept Plan

6.3 GREENSPACE ACQUISITION

The Greenspace system is comprised of a variety of elements, such as parkland, natural heritage features, stormwater management facilities and a hydro corridor. The majority of the Greenspace will ultimately be in public ownership and the City will pursue acquisition of such lands through:

- Parkland and/or open space dedication through the development approvals process;
- Land purchases;
- Conveyance of completed stormwater management facilities;

- Conveyances of natural heritage features and other open spaces through the development approvals process; and,
- If possible, conveyance of the hydro corridor or, in the alternative, securement of joint use of the corridor for pathway purposes.

A master parkland agreement established between the landowners within the Cardinal Creek Village Community to create a mechanism, which allows for compensation of parkland dedication that may be inequitably distributed across the Concept Plan area. The City shall participate in such an agreement through distribution of cash-in-lieu of parkland dedications received to landowners with an over-dedication of parklands. Alternatively, the City of Ottawa shall assist in the overall management of parkland dedications between the landowners.

Dependent upon confirmation of satisfactory front-ending agreements, it is intended that Neighbourhood and Community Parks will be built concurrently with the development of lands within approved Draft Plans of Subdivision.

6.4 DEVELOPMENT PHASING

It is anticipated that within each individual phase, development will occur incrementally through Plans of Subdivision with associated infrastructure and services being installed.

The overall phasing plan for development will be determined by a number of factors including:

- Transportation capacity;
- Sanitary sewer capacity; and,
- Installation of stormwater management facilities required within the relevant sub-watershed.

Options for front-ending by developers will be explored by development applicant(s) in order to secure appropriate timing for

both construction and repayment. The City will provide Development Charge credits, in accordance with the relevant legislation, where infrastructure is front-ended.

Where smaller, individual properties are located within a development phase, such properties shall not be required to be developed with the balance of the lands in that phase. However, through the implementation of plans of subdivision within each phase, provision shall be made to accommodate the potential integration of these individual properties at a future date through overall subdivision design, lot patterns, road layouts and infrastructure plans.

Hydro Ottawa and other public utilities should be contacted early in the planning process regarding the area servicing of development.

6.5 TRANSIT SERVICE

In order for transit to reach the citywide 30% modal split targeted within the Official Plan, transit needs to be accommodated as an integral part of the community structure from the outset of development.

The City is undertaking an assessment of alternative higher-order transit corridors in the eastern portion of the City, connecting to the existing transit infrastructure at Trim Road. If it is determined that a transit corridor is to be appropriately located along Old Montreal Road or the major collector road within the Cardinal Creek Village Community, additional road rights-of-way will be protected to accommodate such transit facilities.

6.6 AFFORDABLE HOUSING

Affordable housing will be required in accordance with Section 2.5.2 of the Official Plan which defines affordable housing as rental or ownership housing, for which a low or moderate-income household pays no more than 30% of its gross annual income.

The Official Plan directs that 25% of all new housing development and redevelopment is to be affordable to households at or below the 30th income percentile for rental and at or below the 40th income percentile for ownership (as adjusted annually in accordance with inflation and the consumer price index.) Therefore, within the Concept Plan area approximately 25% of all housing should be within the above-noted affordability range, assessed at the time of subdivision approval.

To support the development of affordable housing, the City will negotiate the use of the following municipal incentives and direct supports, including but not limited to:

- Deferral or waiver of fees and charges;
- Density incentives or transfer, flexible zoning, alternate development standards;
- Other incentives to be negotiated depending on the depth of affordability achieved.

When incentives are provided to support affordable housing, the City will enter into agreements with developers to preserve the level of public interest in affordable housing. Agreements will reflect the level of public investment required, with more investment resulting in greater levels of affordability. Agreements will include mechanisms to maintain affordability, will specify the mix of units to be provided, and will typically be registered on title and / or become a municipal housing facilities by-law.

6.7 DEVELOPMENT MONITORING

As the full development of the Cardinal Creek Village Community will only be achieved over the long-term, monitoring of the Concept Plan is appropriate in order to determine whether the principles and policies of the plan are being achieved. The purpose of monitoring is to confirm that the underlying parameters supporting the Plan remain applicable and relevant and to determine whether the policies and guidelines are being implemented.

The Official Plan establishes the mix and location of residential dwelling types for Cardinal Creek Village which, as a minimum:

- Constitutes, on a community-wide basis, no more than 55% single detached and at least 10% apartments; and
- Establishes an overall average net residential density for of not less than 34 units per net hectare. Net residential density is based on the area of land in exclusively residential use, including lanes and parking areas internal to developments but excluding public streets, rights-of-way and all non-residential uses.

This 34 units per net hectare does not constitute a maximum average density, but a density target and therefore, compact development that achieve additional densities while having regard to all other policies of this Plan, shall be permitted.

Table 3 identifies overall targets by percentage of single-detached and semi-detached dwellings; multiple, and apartments, based on the Detailed Concept Plan included in **Appendix 'A'**. It illustrates that, on the basis of this Detailed Concept Plan, the required mix of units and density targets in the Official Plan are met over the entire Concept Plan area.

The total number and mix of residential units will be tracked on a community-wide level at the time of development approvals. Minor variations in the expected average density for each housing form are permitted, provided it can be demonstrated that both the total number of residential units and the mix of residential unit types can be reasonably achieved by adjusting density and/or mix on remaining vacant lands within each neighbourhood.

Detailed Concept Plan **APPENDIX 'A'**

This Detailed Concept Plan provides a detailed illustration of the implementation of the Land Use Plan which demonstrates the road and active transportation network, locations of community facilities (such as schools and parks), stormwater infrastructure and so on.

A.1 INTRODUCTION

The Cardinal Creek Village Detailed Concept Plan, as shown on **Figure 10**, illustrates one way in which the Land Use Plan (Section 3.0) could be implemented through development approvals. The purpose of the Detailed Concept Plan is to:

- Provide an illustration as to how the Cardinal Creek Village Community could develop over time;
- Indicate how the community design guidelines could be achieved; and,

Illustrate how the specific Cardinal Creek Village Concept Plan objectives could be achieved.

The Detailed Concept Plan does not require landowners to develop their lands precisely as shown.

A.2 PARKLAND

Figure 3 also demonstrates how the parkland dedication requirements of the Official Plan (i.e. 2.0 hectares per thousand population, or approximately 8 – 10% of the developable land area) could be achieved through the full development of the Cardinal Creek Village Community.

Parkland dedication will be provided in accordance with the provisions of the Planning Act, the Parkland Dedication By-law and the Park and Pathway Development Manual, including determination by the City of lands that are suitable for park purposes.

Land Use	Estimated Units/Area	Parkland Requirement (ha)
Total Number of Dwelling Units (1 ha/300 units)	2,640 – 3,035	9 – 10 ha.
Non-residential Land Uses (2% of non-residential land area)	11 ha.	0.2 ha.
Total Required Parkland		9 – 10 ha
Total Parkland Provided on Detailed Concept Plan		10 ha
Note: The parkland dedication calculation above has been based on the minimum number of estimated dwelling units. Final determination of the parkland dedication requirements will be established at the time of development application. <i>* Estimated number of units does not include the units calculated for the existing residential areas</i>		

Table 6 - Parkland Requirements

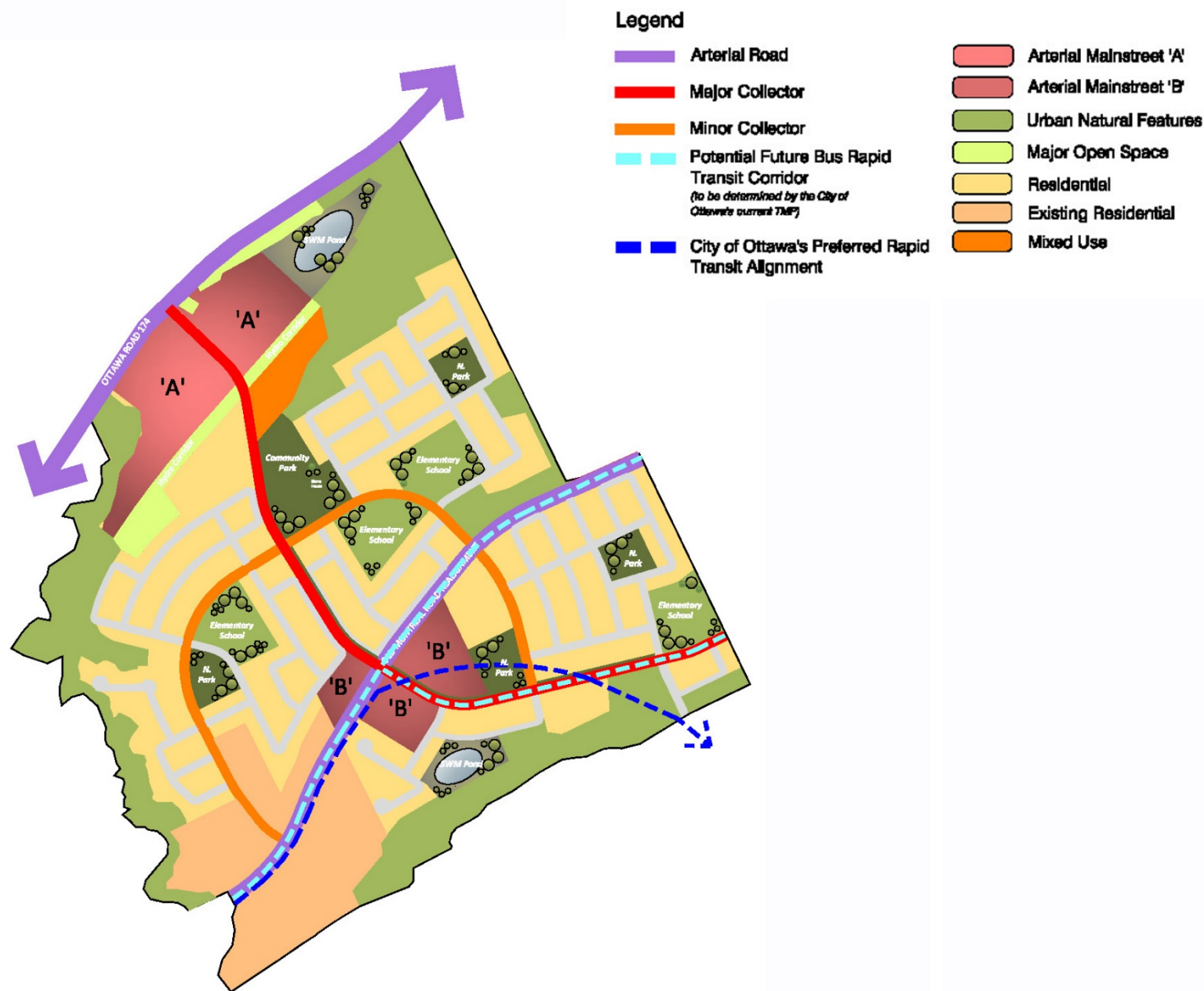


Figure 10 - Concept Plan

A.3 NEIGHBOURHOOD PARKS

As illustrated in the Detailed Concept Plan, Neighbourhood Parks are a minimum of 1.2 hectares in size and are broadly located within the residential neighbourhoods of the Cardinal Creek Village Community so that such parks can be accessed by the majority of residents with a 5-minute walk, as shown on **Figure 11**.

Where traditionally, neighbourhood parks and elementary schools would co-locate in order to share facilities (in particular, sports fields, parking areas, etc.), the City's Parks, Recreation and Cultural Services Department has specifically directed that such co-location not be pursued in the Cardinal Creek Village Concept Plan.

Parking areas are not required to be provided within a neighbourhood park.

A.4 COMMUNITY PARK

The Detailed Concept Plan identifies one Community Park (which is intended to have a minimum of 3.2 hectares in size). A Community Park has been located north of Old Montreal Road to provide accessibility to the overall community. In particular, it is intended that the Community Park will function as central community gathering place ('Central Park') for the Cardinal Creek Village Community.

The Community Park will have frontage on a collector road in recognition that the users may come from a geographic area larger than the immediate neighbourhoods. Notwithstanding, the Community Park have been located within a 10-minute walking distance of most residential areas, as shown on **Figure 12**.

Determination of the specific recreational and sports facilities to be located within the Community Park is an initiative undertaken by the City at a later date but typically include such uses as sports fields,

children's play areas, off-street parking and, hard-surface sports areas

Again, co-location of the Community Park with schools was not pursued at the direction of the City's Parks, Recreation and Cultural Services Department.

The final determination of parkland contribution(s), in accordance with the *Planning Act* and the City's Parkland Dedication By-law, will occur through the development approvals process. Accordingly, the land areas shown on **Table 6** may vary based on the specific number of residential units and/or residential land areas advanced through specific development approval.

A.5 PATHWAY SYSTEM

An integrated network of multi-use pathways and sidewalks will be built by the developers to facilitate pedestrian movement throughout the Cardinal Creek Village Community, and provide connections to adjacent communities.

The establishment of an off-road pathway within the hydro corridor (in consultation with Ottawa Hydro and/or Hydro One) will provide a significant east-west active transportation corridor connecting to other areas of the City to the west (including connections to Petrie Island) and to Rockland/Cumberland to the east.

Internal to the Cardinal Creek Village Community there will be a system of multi-use pathways and sidewalks intended to link all schools, parks and other community facilities, together with open spaces and the Ottawa River. Importantly, the north-south major collector road is intended to be developed with a major multi-use pathway along one side of the right-of-way, framed by a row of street trees planted on either side of the pathway (the double row of trees is intended to be representative of the existing treed driveway within the planning area). This major pathway will connect those portions

of the community located north and south of Old Montreal Road, as well as connect the community to the Ottawa River. While this is not standard road cross-section in the City, this engineering alternative is being advanced as a key design element for the community.

A.6 COMMUNITY FACILITIES

Based on discussions with the various City departments, no facilities for new police, fire or libraries services were identified as being required as the Cardinal Creek Village Community can be serviced by existing/planned facilities in proximity to the community.



Figure 11 - 5 Minute Walking Distance



Figure 12 - 10 Minute Walking Distance